DOCUMENT RESUME

ED 063 501 VT 015 685

TITLE	Annual, 1970-71.
INSTITUTION	Ministry of Education and Culture, Jerusalem (Israel).
NOTE	128p.
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	*Annual Reports; Educational Facilities; Educational Needs; Educational Objectives; *Foreign Countries; Professional Education; *Program Descriptions; Program Development; Tables (Data); *Technical Education; *Technical Institutes
IDENTIFIERS	Israel; National Institute for Technical Training

ABSTRACT

Included in this annual report is a description of the educational program offered at the National Institute of Technical Training in Israel. Specifically, the report lists: (1) the various subjects taught at the Institute, (2) courses of study, (3) entrance requirements, (4) student privileges, (5) obligations and loans, and (6) future projects. The appendix tabulates data on student enrollment by schools, classes, and choice of study. (JS)

ED 063501

Ministry of Labour - Ministry of Education and Culture

NATIONAL INSTITUTE FOR TECHNICAL TRAINING

ANNUAL
1970-71

Tel Aviv, Haqirya, 17-19, D Street
P.O. Box 20122, Phone 25 64 21

VT015685

Ministry of Labour – Ministry of Education and Culture

NATIONAL INSTITUTE FOR TECHNICAL TRAINING

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

ANNUAL

1970-71

Tel Aviv, Haqirya, 17-19, D Street
P.O. Box 20122, Phone 25 64 21

Editor of the Hebrew edition:

Isaac Caspi

Printed by:
Hadpassa - Sherutei Hadpassa VeShichpul
12 Karlibach Str., Tel Aviv

IN MEMORIAM of
The Late Dr. Paul Goldberg
Originator of the Idea of Founding
The National Institute for Technical Training
Passed away in London in 1960

Institute's Directors:

The late Eng. Eliyahu Brown
First Director (1958-1961)
Born 20.2.1910
Passed away in Jerusalem, 17.10.1966

The late Eng. Shlomo Shershevsky
Second Director (1962-1963)
Born 18.11.1907
Passed away 25.8.1963

The late Eng. Meir Laor (Luster)
Forth Director (1963-1965)
Born June 1916
Passed away 24.2.67

And the Institute's teachers and pupils that fell in the battles of Israel Defense Forces, since the Six Day War:

The teacher Dr. Oded Shlizur

School for Practical Engineers

Anger Shimon
Azolaus Gad
Gerstman Uzi
Gilayi Joseph
Israeli Gershon
Labon Moshe
Mordehai Eliezer
Nahari Yehuda
Prisant Dan
Prkash Tuvia
Krupnia Shlomo
Reisman Avraham
Sheref Bruno
Sherfberger Giyora

School for Instructors

Dolitzky Nahman
Marian Moshe

School for Foremen

Aharonov Moshe

PREFACE

I am very pleased to present the public with the first issue of our Institute's Annual Publication. For some time now the Institute's problems, aspirations and achievements have needed a public airing.

This publication is intended to meet the demand for a useful prospectum listing the various subjects of the Institute's schedule, the different courses of studies, entrance requirements, the students' privileges, obligations and loans, and the Institute's future projects.

We are quite pleased to have grown in so short a time. We have far exceeded the boundaries of the optimal planning and as it is, we can no longer depend on memory alone without referring to authorized material in order to supply the applicants with statistical information concerning the subject matter, the standards and the requirements, professional and pedagogical. This publication will serve as such, a source of information.

When we started out, we only had a limited number of students. However, with the advent of the 1970/71 school year we reached the 6990 mark.

Our immediate aim is to accelerate the possibilities of absorbing students and enlisting further educators of high calibre to benefit the national economy, as well as, our technological education.

The Institute employs some 900 lecturers for various subjects and specializations. The staff should gradually increase as new classes are formed. This publication will not only serve them as a source of information but also as a forum to publish professional material. The demand to extend and intensify the Institute's activities has increased. We have pressing objectives ahead of us, such as the opening of new classes, the extension of those in existence in development areas, and the further construction of buildings and laboratory equipment.

In Beer-Sheva an extension to the original school building has already been completed. In Haifa, a spacious modern eight storey building is under construction. Studies are meanwhile conducted in two different places - in the Technion courtyard in Hadar Hacarmel, and on the Technion campus proper in Neve Shaanan.

In Tel-Aviv, as far as buildings are concerned, conditions are deteriorating in both of the Technical Training Schools which were the only ones in existence till the end of the 1969/70 school year. A third Technical Training School has been provisionally set up in a busy central section of the town, for the 1970/71 school year, pending the schools' transfer to their permanent site in Kyriat Hamlacha in Tel-Aviv.

230 students study at the School for Practical Engineers in Tel-Aviv, which when inaugurated in the 1963/64 school year was intended for only 100. A good percentage of applicants are refused entrance for lack of place. In the near future two additional storeys will be added to the existing building.

With the amount of expansion now in progress, it is imperative to add equipment to the Institute's laboratories, which were established by the International Labour Organization's special fund. The existing equipment needs to be supplemented and new laboratories for the various subjects, added last year, need to be put up.

Since I am convinced that all the above-mentioned points will be reviewed and discussed in this Annual, I would ask supervisors, lecturers and all those taking part in any way in technological education, to contribute articles and surveys in their specific fields in this informative publication which is meant to serve them,

At this point I would like to note that the Institute was staunchly supported by the consecutive Labour Ministers during their terms of office although there was no tendency, to transform the Institute into a many faceted one. With Mr. Yoseph Almogi's appointment as Labour Minister the pace of progress was accelerated. The Labour Minister, Mr. Almogi, immediately felt the need for practical engineers and technicians in the national economy, and he spared no effort in developing the Institute. This has already begun to reveal itself in the national economy.

Mr. Dan Ram, the former advisor to the Labour Minister, put the latter's wishes into action. The Head of the Department of Vocational Training and Proficiency, Mr. Israel Goralnik, devotes unstintingly of his time and effort to the Institute. The fruit of his labour is evident in the development of the Institute.

Engineer Meir Avigad, Head of the Department of Vocational Training in the Ministry of Education and Culture, has been following the Institute's activities with interest for a number of years and has contributed to its development in the field of vocational instructors training and that of teachers for technical subjects. Mr. Haim Lazan, Head of the Department for Planning and

Organization, has also spared no effort in order to further the interests of the Institute; and of course, Engineer G. Har'el , one of the founding fathers of technician training in Israel, from 1956 on, has devoted all his time and effort in developing Training for Practical Engineers in the National School for Practical Engineer Training, in all its various branches, under his chairmanship and also through his role as adviser on Practical Engineers' training to the Labour Minister.

Among those who have done a great deal in furthering the idea and the development of Practical Engineers and Technicians training, I would like to name Mr. Zalman Shenkman, the General Secretary of the Practical Engineer and Technician's Association; as well as, Mr. Nisan Sharmister, Head of the Guidance Department in that Association.

The following school principals have also contributed greatly: Engineer A. Eilat of the "Yad Singalovski" school in Tel-Aviv, Engineer B. Baristki, of the Practical Engineers School under the auspicies of Tel-Aviv University, Engineer D. Kofler, of the Practical Engineers School (for adults) in Yad-Eliyahu, Tel-Aviv, Engineer Y. Peri, of the Beer-Sheva Practical Engineers and Technicians School, Engineer A. Russo of the Technicians' School in Tel-Aviv and the Heads of the Institute's branches: Dr. M. Shpiler - Jerusalem; Mr. Eli Navon - Beer-Sheva and Mr. Moshe Shufler, Haifa. I would have liked to include all those lecturers, whose names could not be mentioned here for lack of space, as well as those labouring and anonymous minions who contributed greatly to Practical Engineers and Technicians Training.

They have created and are still creating a new dimension in Non-Academic Vocational Education.

I would especially like to make mention of the painstaking work of the Institute's own employees who have assisted us greatly and have enabled us to succeed in this undertaking.

Shmuel Harel
Head of The Institute

The National Institute of Technical Training, Its Role and Structure

The National Institute of Technical Training was established in the early fifties. The Labour Ministry then realized that in Israel there was a missing link needed to bridge the gap between the standard of a vocational school graduate and that of an engineer as is the rule in progressive countries abroad.

The problem was reviewed, at the request of the Israeli government, by an international expert, Mr. Paul Goldberg, in 1958. He advised the International Labour Organization to assist the Israeli government, technically, in establishing the Institute in its present form. However, nobody, neither the L. L. O. nor the Ministry of Labour foresaw the dynamic development of the Institute which has been the case in recent years.

On the 31st of December 1959 the Institute numbered 5245 students enrolled in 213 classes of which 91 were regular day courses and 122 were evening classes. Up to then 2593 graduates were certified and 1969/70 saw a further 1300 graduates.

The National Institute of Technical Training is a governmental one, and as such, in charge of technical training on the various certified levels between graduate engineers and skilled labourers, as well as the training of vocational instructors and teachers of technical subjects in elementary schools and at various training centers. The Institute is accredited through the Labour Ministry and the Ministry of Education and Culture and is run by the Institute's Board of Directors which consists of the Head of the Department of Vocational Training and Proficiency in the Labour Ministry, the Head of the Department of Vocational Education in the Ministry of Education and the Head of the Institute.

The Managing Committee

The managing committee is the supreme body determining the Institute's course, development and budget. The managing committee is made up of Labour Ministry representatives, as well as representatives of the Ministry of Education and Culture, ORT in Israel, The Technion - Israel's Technological Institute, The General Federation of Labour, The Industrialists' Association, The Labour Productivity Institute,&The Association of Technicians and Practical Engineers. The Chairman of the committee is the Labour Ministry representative.

The main budget for the Institute's activities is divided between the Labour Ministry and the Ministry of Education and Culture. The remaining members represented in the managing committee bear a share of the Institute's expenses. The Institute's Head carries out the management policy according to the premises laid down by the Institute's Board of Directors.

There are three main divisions in the Institute: The Professional-Pedagogical Division which in itself branches out into three subsidiary divisions: the School Curriculum Department, Department of Examinations and the Department of Supervision. The second main division includes the Departments of Practical Engineers, technicians, vocational instructors, technology teachers as well as an advanced studies unit, and one for the Professional Transfer of University Graduates. The third main division, namely that of management and personnel, includes: Secreteriat, Treasury, Accounts and Supplies.

The two former divisions derive their authority from the Supreme Committee for the training of Practical Engineers and Technicians, as well as from the National Examination Authority, and the Certifying Committee for instructors, technology teachers and others.

The Extension of Activities

The Institute faced a new challenge at the beginning of the 1969/70 school year, namely, the training of Practical Engineers and Technicians on a large scale to benefit the National Economy.

At the time the Labour Minister and the Minister of the Exchequer, Industry and Commerce appointed a committee to examine the need for skilled manpower in industry and the ways of satisfying them. The committee was assigned the task of examining the need for workers of various standards in Industry. From the years 1968-73 priority was given to the demand for skilled workers, technicians and university graduates in the Metal and Electronics Industries.

The committee both examined and evaluated the sources for supplying the necessary manpower and the need to train and adapt it to the foreseeable demands till 1973 inclusive.

General (Aluf) Amos Horev was appointed chairman of the committee which was made up of experts from the Ministries of: Labour, Education and Culture, the Exchequer and Defense; The Haifa Technion; the Industrialists' Association; the General Federation of Labour and that Federation's industries.

The committee concluded that by 1973 Israel would have an overall lack of 3850 engineers on all the various levels.

In the field of Engineering and Technology there will be a demand for 5400 mechanical, metallurgical and precision instrument engineers; in the field of electricity and electronics - 3100; in production - 3000; chemistry and food industry - 2100 engineers; all in all in 1973 - 13600 engineers and technicians will be required.

The committee also came to the conclusion that it is necessary to extend the training of manpower, the lack of which is foreseeable.

The National Institute of Technical Training has obviously assumed the responsibility of filling the gap in the various priorities in the different branches of the national economy, and stepping up the pace of engineering manpower going into industry, in order to arrive at a suitable ratio.

The Institute's activities are carried out with the help of the following:

1. Engineering Training schools
2. Technician Training schools
3. Schools for the training of instructors and teachers of technical subjects in Vocational Highschool education
4. Foreman Training schools
5. Professional transfer for University Graduates
6. Advanced pedagogical and professional training

The Institute operates in the following ways:

1. Through direct activity

   (a) The Institute runs this in its entirety, bearing the responsibility for subject matter, supervision, school provisions and certification.

   (b) Activities carried out in cooperation with factors public or industrial, and at their request for which the responsibility is as above.

2. Indirect Activity

   This is carried out by the Institute in the management of institutes of higher or vocational training, by supervision and certification.

The following is a detailed description of a number of vocational training institutes where The National Institute of Technical Training operates indirectly.

The National School for Training Practical Engineers

The National School for Training Practical Engineers is the earliest and the largest of the Institute's branches. This Institute has been fulfilling its purpose since 1963 when a contract was signed between the Technion - the Technological Institute of Israel in Haifa, and the Labour Ministry regarding cooperation in Practical Engineers training. Since 1957, even prior to this joint undertaking, the Haifa Technion in its external studies program, has, however, been offering technician training courses.

By the end of the 1968/69 school year, the National School had 9 branches in: Jerusalem, Eilat, Beer-Sheva, Tel-Aviv, The Rupin Institute of Higher Education (Emek Hefer), Haifa, Nazareth, the Jordan Valley and Zefat.

From the beginning of the 1969/70 school year, the Beer-Sheva branch of the school has been separated from the National School on organizational grounds, and has been operated directly by the Institute. From the 1970/71 school year, the Beer-Sheva school has been incorporated into the Beer-Sheva University Institute and is operated by it.

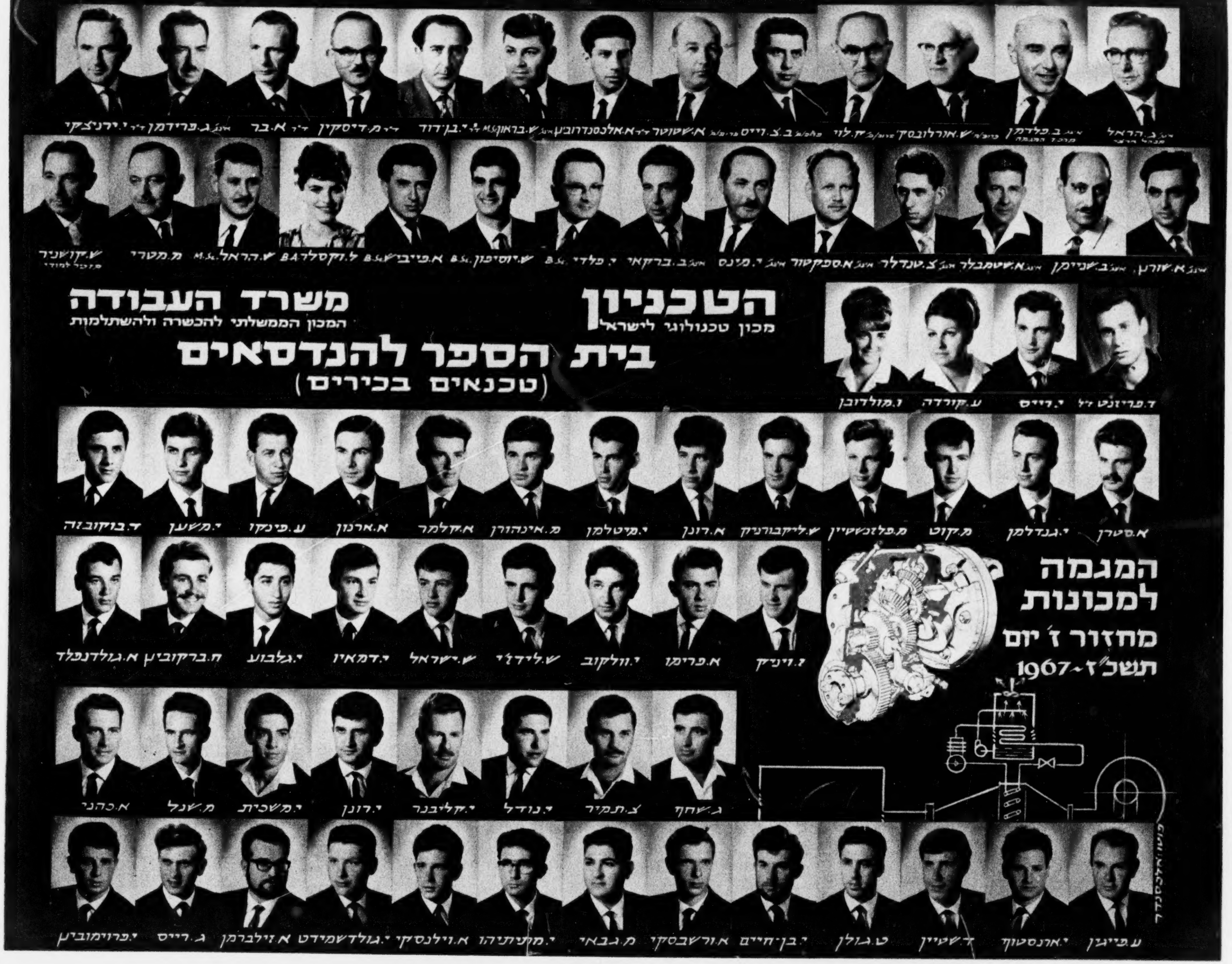
In the National School, most of the lecturers are those of the Technion and teachers who are specialists in their subjects. The Institute determines the students' entrance requirements, the courses of studies, curriculum, means and methods of studies, final examinations and the Degrees to be awarded to the to the graduates.

The following are the departments within the National School for Training Practical Engineers: Civil Engineering (including Architecture), Electrical Engineering, Mechanical Engineering (including Metallurgy), Chemical Engineering, the Science of Plastics, Electronic Engineering and Agricultural Machinery Engineering. In the near future a department of Physics will be opened.

Technicians studying in the "Technical Workshop"[*)] are under the auspices of the National School. Students, completing any of the various courses of studies in the Workshop, who presented a (four-year) high school certificate before entrance, and who have met all the graduation requirements, including: a certificate of completion of studies, a school record with passing grades, and a passing grade on the final papers, are accepted at the National School for Training of Practical Engineers second year of studies, in the regular day courses, or the third year in the evening course. However, all this is conditional to the candidates' having first been successfully examined by the Enrollment Committee, and having then made up whatever of the material lacking, that the Enrollment has obliged him, or her, to do.

---

*) This frame operates in rural areas for members of agricultural settlements.


הטכניון
מכון טכנולוגי לישראל
משרד העבודה
המכון הממשלתי להכשרה ולהשתלמות
בית הספר להנדסאים
(טכנאים בכירים)
המגמה
למכונות
מחזור ז' יום
תשכ"ז-1967
אינג' ב. הראל
מנהל הדרכה
אינג' ב. פלדמן
מרכז המגמה
ש. אורלובסקי
ח. לוי
ב. צ. וייס
א. שטוטר
ד"ר א. אלכסנדרוביץ
אינג' ש. בראון M.Sc.
ד"ר י. בן־דוד
ד"ר מ. דיסקין
ד"ר א. בר
אינג' ג. פרידמן
ד"ר י. ירניצקי
אינג' א. שורץ
אינג' ב. שנימן
אינג' א. שטמבלר
אינג' צ. טנדלר
אינג' א. ספקטור
אינג' י. מינס
אינג' ב. ברקאי
י. פלדי B.Sc.
ש. יוסיפון B.Sc.
א. פייביש B.Sc.
ל. וקסלר B.A.
ש. הראל M.Sc.
מ. מטרי
ש. קושנר
מרכז לימודי
ד. פריזנט ז"ל
י. וייס
ע. קורדה
ו. מולדובן
א. סטרן
י. גנדלמן
מ. קוט
מ. פלזנשטיין
ש. לייקבורניק
א. רונן
י. מיטלמן
מ. איגהורן
א. קלמר
א. ארנון
ע. פינקו
י. משען
ד. בוקובזה
ז. ויניק
א. פרימו
י. וולקוב
ש. לידז'י
ש. ישראל
י. דמאיו
י. גלבוע
ח. ברקוביץ
א. גולדנפלד
ג. שחף
צ. תמיר
י. נודל
י. קליבנר
י. רונן
י. משכית
מ. שנל
א. כהני
ע. פייגין
י. ארנסטוף
ד. שטיין
ט. גולן
י. בן־חיים
א. ורשבסקי
מ. גבאי
י. מתתיהו
א. וילנסקי
י. גולדשמידט
א. זילברמן
ג. רייס
י. פרוימוביץ
פוטו אלכסנדר

The Ben-Zion Mosinsohn Vocational-Educational Institute in Magdiel

The National Institute has been training instructors and Automotive Technicians, for the fourth consecutive year, through the Ben-Zion Mosinsohn Vocational-Educational Institute in Magdiél. This Institute was founded in 1942 as an Agricultural one, meant to absorb girls and boys, survivors of the holocaust. Twenty years later this agricultural schol became a vocational one. A regular high school was added to the Institute in the 1967/68 school year. In this educational Institute, 650 students are studying, half of them, coming from all over the country make use of dormitory facilities. In the Automobile Mechanic Section in which the National Institute takes part, the course of studies lasts two years. Students specialize in the following subjects: Theory of the Engine, Theoretical Knowledge of Vehicles, Thermodynamics and practical training in Petrol and Diesel Engines, Electrical Installations in Vehicles, Dynamometer Operation etc.

Graduates of this school are certified as technicians.

Those studying to be instructors have a different curriculum and specialize in the following subjects: Pedagogy, Psychology etc. which prepare the graduates for instructing in Vocational Schools having automobile mechanic departments.

The Jerusalem Higher School of Technology

The National Institute also includes the Higher School of Technology in Jerusalem among its other extensions, from the beginning of the 1969/70 school year. The Institute takes part in determining this school's curriculum, supervision and certification.

Among the basic principles of the Higher School of Technology in Jerusalem are the following: instructing and educating orthodox students in modern technological subjects, especially in those fields necessary to Israeli industry. What the Board of Directors is aiming for, are: instruction of a higher degree in technological subjects, and practical sciences, with emphasis on specialization in those subjects, In conjunction with this, the school lays the foundation for independent study on the part of the student in Judaic Studies and laws and

and Religious Identity. For 33 weeks students in the first year take 20-22 hours a week. Studies are dedicated to Mathematics, Physics, Computer Science, Optics and English. In the second and third year there is a division in courses of study. Although the School's policy is to afford students a religious education as well as a vocational one, the school is quite willing to accept non-orthodox students wishing to study there.

Graduates of the Jerusalem Higher School of Technology will be accepted to the fourth year of studies at the Bar-Ilan University, and after passing the required examinations at the end of the year will be awarded the B.Sc. degree.

The Mizrahi Girls' Foundation in Tel-Aviv

Since the 1964/65 school year, the Institute's School for the Training of Instructors and Teachers of Technical subjects, in partnership with the Mizrahi Girls' Foundation, has been training orthodox teachers of dress-making and fashion designing for the orthodox vocational schools.

This is a two-year course and the subjects studied are the following: Sewing for mass-production of children's and women's clothes; Means and Methods of teaching sewing, fashion designing, material appreciation, pedagogy, psychology, methodology in general and other subjects of a more general nature.

The first Graduating Class completed its studies in the 1965/66 school year and since then a new class graduates every year.

This year the school has two classes, one studying for its second consecutive year and the other which has now begun its first year of studies.

Schools in Cooperation with "ORT" in Israel

In addition to the Practical Engineer Training School, three classes of Practical Engineer Teachers of Mechanics and Electronics learn in the school, run jointly by the Institute and Ort. The aim is to train students for teaching technical subjects in the Vocational-Educational System in Israel.

The Institute is about to extend its joint activities with "ORT" to include evening schools. Evening courses in Refrigeration Technology and Metalurgical Mechanical Technology have been started in Giva'taim, and Electronic Technology in "Yad-Singalovski" in Tel-Aviv. New classes with a variety of subject matter are being considered for the "ORT" schools in: Jerusalem, Beer-Sheva, Kiryat-Bialik, Afula and other places

Training technicians for Refrigeration and Air-Conditioning is intended to fill the gap caused by the extension of the field of Refrigeration and air-conditioning and its expansion into ever-widenning fields of industry.

As a result of market demand, in certain seasons in particular, the Refrigeration Industry has to put up installations on a large scale for storing and freezing various fruit products.

The rising standard of construction, and that of public buildings in particular (hospitals, offices, hotels, cultural and educational centers etc.) has brought about a greater demand for air-conditioners both private and industrial.

Many industrial plants, which have been built in recent years, are, in most cases, equipped with modern air conditioning installations.

The "ORT" Technicum in Giv'ataim has, in the past, already trained excellent refrigeration technicians with a great deal of knowledge, theoretical as well as practical in the field of refrigeration and air-conditioning.

The evening class will be made up of those discharged from the army, vocational school graduates of four years in metallurgy.. At the end of the course the graduates will sit for government examinations set by the National Examination Authority, and will be awarded the Title "Technician".

The course for Mechanical Technicians (metallurgy) is intended for discharged soldiers who have completed a four-year vocational high school in the field of metallurgy.

From the beginning of the 1970/71 school year, the management of the Practical Engineer Training School situated near "Yad Singalovski" in Yad-Eliyahu, Tel-Aviv, has been transferred to "ORT". The Practical Construction Engineer class has been transferred to the Technicum in Giv'ataim. The school is now left with only three departments: Mechanical, Electrical and Electronic Engineering.

Boys' Town, Bait Vagan, Jerusalem

The Boys' town in Bait Vagan in Jerusalem, is an orthodox educational institute of long standing reputation. Eight hundred students study there at present. So far, the Institute offered two courses of studies: A Regular Yeshiva High School and a Vocational Yeshiva High School. The various courses of studies last year, were: Electronics, Electricity, Machines, Instrumentation and Control, Physics and Chemistry. Boys' Town has extensive installations, well-equipped modern laboratories and a library.

As from the 1970/71 school year two new courses of studies will be offered: one for the training of Practical Engineers and the other for Technicians. All students of this Institute or students discharged from the army having a vocational high-school education who have been accepted to Boys' Town, will be able to graduate as Practical Engineers, Technicians, Vocational Instructors or Teachers of Technical Subjects. The course of studies is two years for practical engineers, one year's intensive studies for technicians and one year for instructors. On the other hand, for those taking evening courses, it is four years for practical engineers, three years for technicians and two years for instructors. The undergraduate students are faced with the following alternatives:

a) a vocational high school certificate upon completing four years of study;

b) a Certificate of Matriculation in addition to the Technician's Certificate following four and a half years of study;

c) upon completing five and a half years of study the student receives both the Certificate of Matriculation as well as that of a Practical Engineer.

The Institute is confident of attracting a great many students who wish to acquire a non-academic vocation in an orthodox institute.

The Regional College

The Israeli Society and its Economy demand on the one hand to enable as large a number of pupils as possible to acquire high school and post high school education, and on the other hand, there are no possibilities of draining settlements of working hands who wish to go to distant centers of study where high school, post high school and university education is found.

The Regional College has been established for this purpose. It will contain supplementary courses in high school studies for those who require it, as well as, post high school studies in the following departments: Humanities, Social sciences, the Natural Sciences and Technology. Graduates of these post high school courses, will, in the near future, be able to continue their studies at a university. The first experiments have already been carried out in the Menashe and Jordan Valley areas. The Regional College in Menashe associated itself with the Tel-Aviv University, while, the Jordan Valley Regional College associated itself with Bar-Ilan University. These Colleges are allotted lecturers from these Universities for certain specific subjects which were authorized and recognized by the Institutes of Higher Education. From the experience gained, the Universities will be able to decide how much credit a student should get at these colleges which would be the equivalent of studies at the University proper.

The National Institute of Technical Training will be the deciding factor as regards technological studies at these colleges, namely, Curriculum, Instruction, Examinations and the Supervision of Studies.

The School for Practical Engineers Associated with the Tel-Aviv University

The School for Practical Engineers associated with Tel-Aviv University trains adult Practical Engineers in electronics in day courses, as well as young Practical Engineers in Chemistry and Physics. In the 1969/70 school year there were about 50 adult students.

The school is about to offer a new course of studies in Instrumentation and Control. As is the case in all post high school vocational education, the Institute serves as a supervising body directing and accrediting the adult students of this school.

The "Hadassah" School for Practical Engineers and Technicians

Hadassah is about to establish a school for the training of Practical Engineers in Jerusalem, which will offer the following courses: Electronics, Computers and Chemistry; and also the training of technicians in Photography and Filming. Its a bi-annual course of studies. Those who are after army service with Certificate of Matriculation will be accepted.

The school will provide, among other things, an adequate solution to the lack of technological manpower in Jerusalem, by training Practical Engineers and Technicians in the above mentioned subjects.

The Hadassah Federation feels the importance of opening a school for Practical Engineers and Technicians especially for women with Certificates of Matriculation whose studies were interrupted by early marriages who will now be given a chance to acquire a suitable technical training of good standard and pursue their careers.

The school will be opened to the public in Jerusalem in the 1970/71 school year. The studies will take place within the framework of the Institute and under its supervision like the rest of the schools throughout the country.

The Technical Intensive Study Centre

The Technical Intensive Study Center is another link in the chain of branches connected with the Institute. This T. I. S. C. has just begun its third year of existence. Would-be technicians from all over rural Israel study here. Its co-associate is the Federation of the Kibbutz Movement's Educational Authority. The following are the branches of the T. I. S. C. in action, at the present time: Shaar Hanegev, The "Brenner" Area (Giv'at Brenner), the Sharon Coast (Shef'aim), the Rupin Midrasha (Emek Hefer), in Hadera for the Menashe Area settlements - Emek Hefer, and Hof Hacarmel (the Carmel coast), "Ohel Sarah" Jezreal (for the valley area settlements), "Yad Natan" for the Ga'aton and West Galilee settlements and in Tel Hai, for the upper Galilee.

The T. I. S. C. 's purpose is to train manpower to support and develop the working settlements' economy and industry. As a result of the basic changes which took place in this sector it finds expression in growing dimensions of industry, technological progress and setting up plants in new industrial branches.

In the working settlements as in the industrialized urban area, professional manpower, necessary for positions of responsibility in the various stages of industry, is clearly lacking.

Every one of the Kibbutzim in the Working Settlement sector, has at least one industrial plant, some of them even have two or three. In most of the Agricultural branches too, progress has obviously been made in methods of production and increase of output. In most branches of the various products of field and yard, as is the case with the rest of the services, expensive elaborate mechanized technical equipment abounds, while skilled labour is lacking. The T.I.S.C. was established for this purpose, its aim being the preparation of technical classes well equipped with an extensive knowledge of the various Agricultural subjects of the training of skilled labour in the full use of existing industrial machinery, and the development of more machines, as the need grows.

In the T.I.S.C. the method of instruction is different from the rest of the National Institute's classes, and is divided into three stages. In the first and second stages of study instruction is given by the Post High Schools for adults in association with the local municipality. Instruction is held 12 hours a week, sometimes divided into 6 hour sessions . All in all it amounts to 450 hours per stage. Instruction in the first and second stages amounts to 900 hours in two years. The third stage amounts to 900 hours of instruction and is given at a national center, according to courses. At the end of each stage, external exams on a general national standard are held in all the schools.

There is also a two year's course of regular day studies within a framework of two separate stages as is the case in the Tel-Hai Instructional Center. Every stage is equivalent to 6 months of instruction during the autumn and winter period.

The third method of the T.I.S.C. activities is through a year (11-12 months) of "intensive" studies in dormitory conditions (The Rupin Midrasha) and regular daystudies of 1800 hours, which is the full course of instruction for technicians. All 3 programs lead to the student's certification as a Technician, naturally, having met all the requirements first.

Professional Retraining

The National Institute was made responsible for the professional retraining of university graduates. The problem of professional retraining has not yet been solved even in the developed countries. Israel has already been forced to prepare itself to take swift action due to the importance of the problem of absorption of new immigrants and to ensure the professional mobility required as a result of changes in the structure of the economy as our country has a dynamic economy and is absorbing immigration. It has to balance the supply and demand of engineering manpower on the labour market. There are frequent changes in the market's demand as this demand is a result of production and scope.

Academically qualified manpower arriving through immigration is partially absorbed by the labour market but it is, however, partially unabsorbed. This is so because the immigrants' profession and to some extent that of the veteran population does not fit the local market's requirements. We have information that apart from a large percentage of lawyers and university graduates in the Humanities who are unable to find employment in their field, there are also 13.1% of the graduates and post graduates of the Natural Sciences and 16.4% of the Agricultural Department and 16.7% of the engineers who are not employed in their fields but are employed as managers or civil servants, for which their hard earned education is completely unnecessary. That means that those absorbed in certain fields should be rechannelled into professions required by the labour market today, such as, quality control, safety supervision, production supervisors, industrial management etc.

According to a cautious estimate, worked out by the National Institute, 2.5 million IL. will be needed to finance the rechannelling. Due to experience gained, so far, in the field of professional rechannelling, in 15 courses in which the Labour Ministry has taken part since the beginning of 1967 (following the recession) it is possible to plan rechannelling along the following lines: changing a profession takes from a month to a year. The number of participants in each class was between 5 and 30. The professions placed included: marketing, social work, cultural directors, system analysis, safety, insurance specialists, librarians, internal control and scientific information.

The following preparatory Institutions served as workshops for this instruction: Tel-Aviv University, Bar-Ilan University, The Weizman Institute, The Treasury, The Ministry of Education, the Labour Productivity Institute, The Safety and Hygiene Institute, the Migdal Co. Ltd., the Binyan Co. and the white collar worker federation's Management Training College.

A program for the placement of 440 Israeli university graduates is now being considered. They will be offered one of the following subjects: Programming (2 courses), System Analysis, Marketing Managers, Social Work (2 courses), Quality Control (2 courses), Safety Inspection, Production Supervision, Industrial Management, Electronic Technicians, Maintenance Engineers, Product Shaping and Packaging and Company Secretaries (personnel management). The required budget is IL. 1,430,000 (not including grants). As for the placement of new immigrant . university graduates, the opening of the following classes is now being considered: two classes for each of the following subjects: Social Workers, Marketing Managers, Programmers and System Analysers; one class for each of the following subjects: the Science of Information, Financial Management, Costing and English. All in all 275 new immigrant university graduates will participate. The required budget is IL. 962,000.

Other programs have been under consideration, such as, Hotel Management, Traffic Engineering, Technical Librarianship, Safety Engineering, etc.

The system according to which the above-mentioned activity will be carried out has already been worked out in details. Candidates will apply to the man in charge of placement through the Center for Academic Manpower Employment, Absorption Centers, the Ministry of Absorption's Ulpanim, New Immigrants' Associations and professional representatives of university graduates in the various Workers' Federations.

The person in charge of placement will head the admittance committee, will check the candidates; questionnaires and will call them for interviews and psychotechnical tests.

The rechannelling will be carried out through the Institutions of Higher Education or Training Institutes specializing in certain specific subjects. When the Regional Colleges are inaugurated, they will provide the solution for the problems of training.

Any changes in the balance of supply and demand in the Labour Market will be followed by changes in programs and courses of studies required for placement.

The following are details of the program for re-channelling concerning the purposes, the necessary qualifications, method of instruction, the duration and condition of the courses.

A Course to Advance the Progress of Trade and Marketing (two levels)

The purpose of this course is to train new immigrant university graduates, registered in the Bureau for Academic Manpower or those still at absorption-centres, for senior positions in management and counceling in trade, retail, both on a small as well as on a large scale (such as supermarkets) and marketing concerning industrial plants.

Qualified Candidates are university graduates in the following fields: Economics, Statistics, Sociology, Business Administration, Social Psychology, and possibly lawyers with some experience in Economics.

Duration of the Course - The course takes 5 to 6 months of day-time studies (including 6 weeks of preparatory Hebrew). It will take place in the building belonging to the Labour Productivity Institute, 4, Henrieta Sold Str., Tel Aviv.

Method of Instruction - The course contains both theoretical, as well as practical instruction. The Participants will be required to hand in excercises and homework, read professional literature, to sit for examinations and to carry out projects.

Conditions regarding participation - Candidates will be selected by a committee composed of representatives of the National Institute of Technical Training, the Ministry of Absorption, the Bureau for Academic Manpower and the Labour Productivity Institute. During the entire course of instruction, participants will be unable to do any other work, as attendance and participation in lectures, as well as homework, are all intensive. This requires a great effort on the part of the participants and will take up all their time in studies and other activities connected with this.

Allotment of Positions: All graduates of the course, who have successfully passed the examinations will be placed in positions by the Center for the Employment of the Academically Trained.

The Support given during the course - New immigrants, possessing "New Immigrant Cards" are entitled to the Ministry of Absorption's care for three years from the date of their arrival (this includes temporary residents). Candidates for the courses for professional placement are entitled to monthly living expenses throughout the course as follows:

a head of a family	IL. 250
a wife learning together with her husband	IL. 100
every person supported	IL. 50
maximum per family	IL. 550
a woman student with a working husband will get no living expenses	
a bachelor	IL. 200

Industrial Management

This course is intended for University Graduates in the Humanities, Social Sciences and Engineers. It is recognized by the Civil Service Perfecture.

The purpose of the course is to offer the participants information, both general and specific in the field of Industrial Management, as well as to instruct them in its various branches.

Entrance Requirement - an interview by an admittance committee.

Subjects of Instruction - Economics, Financial Management, Book Keeping, Industrial Costing, Budgeting, Sociology, Industrial Psychology, Management and Organization, Industrial Engineering (labour research, system and process improvement, production planning and supervision, wage systems and subsidies, quality supervision and quality control and maintenance), Trade Laws and Rules, Labour and National Insurance Laws, Marketing, International Trade and Commerce, Enterprise Planning and Establishment, Statistics, Production Analysis, Staff Management, Labour Relations and Communication, Automatic Programming, Methods of Instruction, Public Relations and Advertising, Supply Management, Stock Management, Technical Reporting, Insurance, Taxation, Current Problems in Industrial Management - seminar and final project.

Visits to industrial plants will be organized during the course.

Production Management

The course is intended for engineers, technicians and university graduates in the Humanities or Social Sciences who wish to specialize in Production Management. The Course is recognized by the Civil Service Prefecture.

The Entrance Requirement - an interview by an admittance committee.

Subjects of Instruction - Labour Research and System Improvement, Labour Estimate, Production Planning and Supervision, Machinery Arrangement and General Outlay, Quality Control, Organization and Management, Economics, Statistics, Safety, Accounting, Industrial Costing and Budgeting, Methods of Instruction, Wage Systems, and Encouragement Bonuses, Labour Relations and Communication, Efficient use of Slide-rule, Current Problems in Production Management, a seminar and final project.

Management and Marketing

The course is held in co-operation with the Israel Advertisers' Association. The course is intended for university graduates in the Humanities and Social Sciences and those dealing with management, and marketing, sales promotion and advertising and sales engineers or those who wish to work in the above-mentioned fields.

Subjects of Instruction - Marketing Principles, Product and Price Policy, Consumer Behaviour, Sales Promotion, Sales Management, Market Channelling and Costing, Transportation, Stock Management, Retail Marketing, Marketing Research, Quantitative Systems in Marketing, Management, Advertising, Production and Foreign Trade.

Visits to plants & lectures given by guest lecturers will take place within the framework of the course.

Office Management

The purpose of the course is to impart professional expertise and a theoretical foundation to those in personnel management, or others who would like to be so engaged. It is intended for graduates of the Humanities and Social Sciences.

Entrance Requirements - A High School Education and an interview by the Board of Admissions.

The following are the subjects of instruction: Economics, Sociology, Psychology, Political Science, Statistics, Accounting, , Costing Budgeting, Income Tax, Production Engineering, Management and Organization, Principles, Labour Economy, Personnel Management, Human Relations in Industry, Princples of Automatic Programming, Principles of Reporting, Methods of Instructing Others, Interviewing Techniques, Professional Associations, Labour Laws, Current Topical Questions in Labour Relations, a seminar and also tours of plants.

Hospital Management

This course will be jointly operated by The Health Ministry, The General Federation of Labour's Health Serivces, Center and The Association of Administrative Directors of Hospitals. It is intended for graduates of the Humanities and Social Sciences.

This course is recognized by the Civil Service Prefecture.

The Subjects of Instruction are as follows: The Economics of Medicine, Basic Psycho-Sociology, Management Laws and Hospital Rules and Regulations, Medical Statistics, System-Analysis, Financial Management, The Management of Supply, Caretaking, Supplies and Stock Management, Maintainance and Technical Services, Economy and Diet Services, Household Management, Safety, Fire Prevention, Basic Public Health, Medical Electronics, Theory of Management, The Organization and Operation of Hospitals, Manpower Management, Human Relations and Communications, Laboratory and Institute Development, Hospitals as Instructional Institutes, The Basic Theory of Public Management, Public Relations, The Hospital Depts., Medical Registration, and a final project.

Within the framework of the course, symposiums and round table discussions will be held.

Hotel Management

This course is run in cooperation with the Ministry of Tourism and the Hoteliers Association in Israel. It is intended for graduates of the Humanities and Social Sciences. The course is recognized by the Civil Service Prefecture.

Accrediting - In accordance with the experts' Decree, published in the lists as No. 1691 dated February 26,1965, every hotel is required to employ, full time, a manager or an assistant manager, with the appropriate qualifications.

This course fulfils the requirements for government authorization.

The Subjects of Instruction - Economy and Hotel Economics, Industrial Psychology, Accounting, Costing, Commercial Law, Labour Laws, Statistics, Insurance Laws, Management and Organization, Production Engineering, Labour Relations and Communications, Instruction of Staff, General Knowledge of the Land and its People, Sales Promotion, Public Relations, Sanitation, Food and Beverage Services, Reception Management, The Chemical and Physical Basic Preparation for the Preservation and Storing of Food, Restaurant Management, The Running of a Kitchen, the Inspection of Supplies, Household Management, Food and Beverage Services Control, Hotel Maintenance, Automation in Hotels, study tours, practical work in hotels as well as lectures by visitors will also be held.

Programming for Electronic Computors

This course is intended for Engineers, Graduates of the Humanities, Mathematicians, Authorized Assessors, Chartered Accountants and others with a knowledge in Mathematics with the equivalency of a high school science certificate at least.

The Purpose of the Course - is to confer a general knowledge of Computors and I. B. M. Computor Programming of the 360 series.

Entrance Requirement - an interview by a board of Admissions.

Subjects of Instruction - Introduction, Programming in the Assembler Code, Programming in the Fortran Code, Programming in the Cobol Code, Service Programming.

Quality Control

This course is intended for Graduates of the Humanities and Social Sciences, and Engineers in the different fields of engineering, and its purpose is to qualify them for positions in management and administration of quality control in the plants where they are employed.

This course is recognized by the Civil Service Commission.

Entry Requirement - an interview before a board of admissions

Subjects of Instruction - Quality Control Principles, Management of Quality Control, Review of the Standards of Quality, Quality-Improvement Process, the Economic Problem of Quality, Specifications, Control of Minor Suppliers, Information Programming, Human Relations and Communication, Problems in Surveying and Tolerance of Materials, the Theory of Probability, Statistical Methods, Control Designing, Various Techniques in Quality Control, Quality Control in Industries of a specific kind, Advanced Subjects in Data Analysis, Experimental Programming and Analysis of Events.

Maintenance Engineering

This course is intended for senior technical staff, and its purpose is to qualify the students for senior positions in plants in the following branches of maintenance: planning, organisation and operation. This course is also intended for graduates of the Humanities and Social Sciences.

The course is recognized by the Civil Service Commission.

Entry Requirement - an interview before a board of admission.

Subjects of Instruction - Implications of Maintenance, Planning, the Organization of Manpower, Organizational Structure, Definitions of Roles and Authority, Systems of Maintenance, Wages, Planned Preventive Maintenance, Electrical, Technical, Auxiliary and Mobile Equipment, Working Tools, Warehousing, Tools, Various Instruments, Structures, Management of Supply Maintenance, Construction of Warehouses, Spare Parts, Deciding Sizes, Orders, Planning and Determining Planning Stages, Administration, Administrative Equipment and Files, Mail, Safety, and Electronic Data Programming.

Transportation and Traffic Engineering

This course is intended for those working in the field of Engineering, technicians, and senior managers whose work is connected with the field of transportation, traffic and accident prevention. It is intended for graduates of the Humanities and Social Sciences.

The course is recognized by the Civil Service Commission.

Entry Requirement - an interview before a board of admissions.

Subjects of Instruction - Traffic Statistics, Transportation Economics, Traffic Supervisors, Transportation Surveys, Traffic Planning ranging from solitary cross-roads up to networks of roads, Parking Facilities Planning, Parking Lots and Parking Service Stations, Traffic Boards and Traffic Signs, Traffic Lights Planning ranging from solitary cross-roads up to whole sets of traffic lights on a green wave, The Planning of Public Transportation Systems and Central Bus Stations, Traffic Forecasting, Traffic Models, Master-Plans for Transportation, the Traffic Aspects of Town Planning, Traffic accidents, their types and causes, Research, Means and Methods of Reducing Traffic Accidents, Standards for Traffic Planning, Traffic Department Operation, a final project and professional tours.

Technical Librarianship

This course is intended for librarians or would be librarians in special technical libraries in Industry, in Economic Enterprises and Government and Army Establishments. The course is also intended for graduates of the Humanities and Social Sciences.

The course is recognized by the Civil Service Commission.

The purpose of the course is to prepare the participants for a general examination (stage one) of the Israeli Librarians Association (I. L. A.) and for the supplementary examination (stage two) in the department for special library studies. Candidates successfully passing the supplementary examination, will be awarded the title of "Librarian".

Entry Requirements - an interview with the course counsellor, a good knowledge of the English language and the knowledge of an additional European language is an asset.

The Subjects of Instruction - The Principles of Classification, Classification according to the Dewy Decimal System, Cataloging, and Library Administration. Additional texts for the Librarians, Professional and National Bibliographies, Systems of Work in Special Libraries and the handling of Special Material, such as, journals, pamphlets, catalogues, trade journals, newspaper clippings and other such material, Principles of Photography and Duplicating in Library Usage, Documantation, Editing Bibliographies and Indexes, The Editing of Abstracts, and Various Punched Library Cards, a Survey of the Development of Libraries All Over the World emphasizing the nature and development of libraries in Israel today, and International Organizations of Special Libraries.

An Advanced Course for Safety Engineering

The course is jointly held with the Israeli Association of Insurance Companies. It is intended for senior technical staff in Industry and Institutions, fire-fighting offices and those in charge of safety. It is also intended for graduates of the Humanities and Social Sciences. The course is recognized by the Civil Service Commission.

Entry Requirement - an interview before the Civil Service Commission.

Subjects of Instruction - Safety, Accident Statistics and Their Analysis, Laws, Insurance, Work Accidents, Fires and Their Prevention, Floods, and Earthquakes, Safety in the use of Radioactive Radiation in Medicine, Industry and Agriculture, Fire-Fighting, Fire-Prevention, and Hygiene.

System Analysis for Automatic Data Processing

The Purpose of the course is to offer basic information in the subjects of System Analysis and skills in the planning methods for Data Processing, including the adaptation of electronic computers,and their operation in the field of management.

Required Qualifications - A higher education in Management, Statistics, Economy, Business Administration, Mathematics, Sociology, etc.

Knowledge of the English language is an asset.

System of Instruction - The course offers Theoretical, Practical and Applied studies including: Lectures and Discussions, Excercises and team-work working out problems in System Analysis, Automatic Data-Processing and Planning.

The Duration of the Course - The period of the course is between 3 to 4 months of regular day-studies. It includes professional tours of plants and work with computers.

It will be held in the building of the Labour Productivity Institute, 4 Henrietta Sold Str. Tel Aviv. Part of the course will be held in dormitory conditions.

The Conditions of the Course - The candidates will be selected by a committee composed of representatives of the Labour Ministry, The Ministry of Absorption, The Labour Bureau for University Graduates and The Labour Productivity Institute. The Participants will not be able to do any other work or be otherwise occupied during the entire period of the course. Lectures and homework are intensively planned therefore the participants will have to make a special effort and devote all their time to studies and other activities connected with the curriculum.

The Science of Information

The Purpose of the course is to qualify managers of information centers, of technical and scientific libraries in Government Offices of Research Institutes and of Industrial Enterprises.

Qualified Candidates - are graduates of Chemistry, Mathematics, Statistics, Physics, Biology, Agriculture, Engineering and Medicine. There is no age-limit.

The knowledge of English is obligatory.

System of Instruction - The course offers theoretical and practical instruction in the following fields: Methods of Library Work and Documentation, Data-Processing Equipment, Sources of Technological and Scientific Information, and Methods of Reference, Conventional and Non-Conventional Handling Systems of Information, Storage and Recovery, the Use of Computer, Dissemination of Information; Preparation of Bibliographies, Indexes and Abstracts, Writing Surveys, Photocopying Methods; Printing, Editing and Publication, The Administration of a Special Library and Information-Center, Networks of National and International Information Centers of Archive Administration, etc.

Duration of Studies - The course will last 10 to 12 months of full-day studies and it will be jointly operated by the National Council for Research and Development and the Weizman Institute of Science.

Commencement of the Course - Since the running of this course depends on lecturers from abroad, the course is not expected to start before the end of 1970.

Living Conditions - The course may be held in dormitory conditions at the building of "Hapoel Hahaklai" (agricultural worker) in Beit Dagon.

Students will receive board and lodging there apart from Saturdays.

If, due to unexpected circumstances, dormitory conditions are not arranged, the students will be entitled to monthly living expenses, throughout the course, as follows:

The head of a family	I. L. 250
Every family member supported	50
A woman studying together with her husband	100
Maximum allowance	550
A bachelor	200

A woman student whose husband is working will not be entitled to any allowance.

The Course of English Studies

The Purpose of the course is to offer a basic knowledge of English, and the technical and administrative terminology used in Research Institutes, Industry and Public Administration.

Qualified Candidates are any University Graduates whose lack of knowledge of the above-mentioned hinders their absorption in the National Economy or their participation in the course for professional placement.

Method of Instruction - Regular day studies, exercises and examinations. As the course is mainly intended for new immigrants from Eastern Eurppe, the language of Instruction is Russian.

Duration of the Course - three months

Financial Support for the Duration of the Course - New immigrants possessing immigrant cards, who are cared for by the Ministry of Absorption for three years from the day of their arrival (including temporary residents) and who are candidates for the courses for professional placement, are entitled to monthly living expenses, throughout the course, as follows:

The head of a family	IL.	250
Every family member supported		50
A wife studying together with her husband		100
Maximum allowance		550
A bachelor		200
A woman student, whose husband is working will not be entitled to any allowance.		

The Course for Social Work

The Purpose of the course is to confer basic knowledge of the subjects concerning the treatment of needy people cared for by public institutions, individually and as a family unit and the granting of the services resulting from it.

Qualified Candidates are University Graduates (at least a B.A.) of Sociology or Psychology. Knowledge of English and Hebrew is obligatory.

System of Instruction - The course includes theoretical as well as practical studies as follows: For the first few months the lessons are theoretical and are given intensively. This is followed by four months of practical training in various social work agencies. Following the termination of the first stage in training - about two and a half months - there are intensive theoretical studies. Four months of practical training are given to the end.

The Duration and Location of the Course - The course lasts for 13 months. The theoretical studies will take place at the School for Social Work, Associated with Bar-Ilan University, and the practical training will take place in Social Work Agencies in the South of Israel.

The Conditions of the Course - Candidates will be selected by the principal of the school who is responsible for the course's operation. The participants will not be able to do any other work or be otherwise occupied during the entire course of studies. The commencement of the course is planned for the beginning of October 1970.

Financial Support for the Duration of the Course - New immigrants possessing immigrant cards, who are cared for by the Ministry of Absorption for three years from the day of their arrival (including temporary residents) and who are candidates for the course for professional placement, are entitled to monthly living expenses, throughout the course, as follows:

The head of a family	IL.	250
Every family member supported		50
A wife studying together with her husband		100
Maximum Allowance		550
A woman student whose husband is working, will not be entitled to any allowance.		

Students may possibly be lodged at the Students' Hostel at Bar Ilan University and during the period of practical training they may be lodged on the spot.

The Practical Engineer Training Policy

Recently there have been a number of technological changes in the National Economy of such a scope and standard as to greatly influence the evaluation of society.

As a result we have been faced with complicated and complex problems in the fields of Edcuation, Organization, Management and Economy. We have been especially affected by a critical shortage of responsible, skilled personnel in the various fields of production.

In an effort to help solve the problem of the shortage of Practical Engineers, the National Institute has lent impetus to the growing dimensions and values of training. The graph reflecting the training situation has changed. As a result of the increasing number of regular day students, there has been a proportionate decreasing number of students in the evening courses which last four years. During the last school year the overall number of students rose from 2870 to 3320. All in all an increase of 450 students. New classes with additional varied features will be opened in the coming school year.

The following is what the Institute requires of the Practical Engineering Candidate. The candidate should have a broad knowledge of the Natural Sciences including Mathematics and Technology; the Institute also requires practical experience at work. A Matriculation Certificate is an additional requirement for the candidate wishing to learn Electronics. Graduates of a four-year vocational high school are usually accepted. Graduates of a three year vocational high school are required to take a preperatory course before beginning their regular studies. There is a strict selection by entry examinations.

The detailed lists of the aims and subjects being instructed at the school for training Practical Engineers, which appears in this publication, shows that the Practical Engineer's work and responsibility on certain levels approaches that of the graduate engineer, as illustrated in the following pyramidical table.

A Pyramid of Responsibility

A Graduate Engineer	Planning & Management on a high level	Concept and Research
Practical Engineer	Planning & Designing Managing & Organizing	The working out of plans; General Supervision; Checking Technical Calculations
Technicians; Foremen	Performance within the range of training	Operation, Maintenance; Supervision and Guidance
A Skilled Labourer Asisting Labourer	Practical Performance Aid in Actual Work	Skilled Work Supporting Work

The following are degrees parallel to that of a Practical Engineer in different countries. The comparison was made by the Overall Committee for the Training of Technicians in which the following bodies are represented: The Labour Ministry, The Ministry of Education and Culture, The Technion - Israel Institute of Technology, The Tel-Aviv University, The General Federation of Technicians and "ORT" Israel. It appeared in the March 1966 edition of the Journal "Summaries and Decisions".

Hogere Technische School (H.T.S.) in Holland
The Ecole Technique Superiéure in Belgium
The Teknikum in Denmark and in Switzerland

Graduates of the above mentioned educational Institutes are awarded one of the following degrees:

A Non-academical Engineer	Nichtakademischer Ingenieur
An Engineer	Ingenieur
A Practical Engineer	Practical Engineer
An Engineering Technician	Ingénieur Technicien
A Senior Technician	Technicien Superieur

Graduates of the above mentioned schools are trained for the following operations:
1. Placement in research - side by side with graduate engineers and scientists.
2. Development and experiments. 3. Planning, Programming and Calculating
4. Operations, Planning of Maintenance 5. Technical Management of Medium-Sized Plants.

Schools for Practical Engineer Training

A. Purposes of the Training

The schools' aim is to train Practical Engineers by making available to them a wide-ranged, advanced, skilled, technical engineering education in answer to the National Economy's demands. This training corresponds to the curriculum of the parallel educational institutes abroad.

B. The Practical Engineer

The Practical Engineer is a connecting link between the graduate engineer and the technician or the skilled labourer. He puts ideas into action and sees that they are carried out. He has sufficient training for the following operations:

1. Placement in research alongside of scientists and graduate engineers.
2. Development and experimentation.
3. Planning, Programming and Calculating.
4. Operating ., Planning and Maintenance.
5. Senior positions in Industry and Construction.
6. Technical Management of Medium-sized plants.
7. Production planning, including installations and processes.
8. Technical Supervision of production and its operation.
9. Development and application of working methods.
10. Guidance in the operation of equipment.
11. Instruction and Guidance in Technical Institutes.

The above-mentioned positions require a good theoretical foundation in order to understand the graduate engineer and his way of thinking, as well as, a broad understanding of his own field of work. The Practical Engineer should know the Technician's and Skilled Labourer's principles and working methods.

C. The Systems of Instruction

Every student may choose one of the three following courses of studies:

1. Regular day courses which last about 2 years. There are 36-44 study hours per week.
   All in all there are 2800-3200 study hours.
2. Evening courses which last about 4 years. The total number of study hours is similar to that of the regular day courses.

3. Accumulative course

   a. The school enables those interested in accumulative part-time studies to do so once or more times a week in the evening.

   b. Those interested will study Mathematics, Physics and Chemistry, all of these subjects or part of them.

   c. This program is common to the sections of Practical Engineering, Mechanical Engineering, Agricultural Mechanization, Construction and Chemistry.

      The Electronic and Electrical Engineering sections have a separate and more intensive program.

   d. The entrance requirements are the same as those of courses A and B in Practical Engineering.

   e. Graduates of the above mentioned subjects are entitled to the following privileges:

      1. They are exempted from entrance examinations till the following year of studies at the school;

      2. They are exempted from taking subjects which they have learned when they took one of the two regular courses.

   f. The National School for Practical Engineer Training holds courses, in this program, even in places where it does not have a branch, provided that a sufficient number of students register to justify the opening of such a course.

D. Entrance Requirements

Candidates in the various fields of Practical Engineer Training will be accepted if they satisfy the following requirements:

1. A Matriculation Certificate, either regular or external.
2. A graduate of a four year regular or vocational high school.
3. A graduate of either a regular or a vocational 3 year high school, will be accepted to a preparatory course in order to bridge the gap in material and knowledge between 3 to 4 years schooling and achieve a four year high school standard. A candidate who has successfully passed the final exams of the course held within the framework of the Ministry of Education's

External exams, will be admitted to his chosen section of study without exams.

4. Graduates of the 11th grade of regular high school who have successfully passed the final examinations of the above mentioned prep. course will also be accepted.

5, Admission depends on the following actions:
   a) Registration and completing a "student questionnaire"
   b) A personal interview.

   Note
   - In certain cases the candidate will be required to take an entrance examinations and/or Psychotechnical tests.
   - See page 51 (the section dealing with prep. courses for Practical Engineers.)

6. Possessors of Matriculation Certificates and regular or vocational high school graduates will be admitted in the following fields: Electronics, Construction, Chemistry, Plastics, Computer Sciences, Metallurgy, Material Analysis, Physics, Textiles and Agriculture (Agronomy).

7. Only 4 year vocational high school graduates or those possessing a Matriculation Certificate and having practical experience in the subject will be admitted to the following sections: Mechanical Engineering, Electrical Engineering, Agricultural Engineering (soil and water), Mechanization and Control, Agricultural Machinery and Aeronautics.

E. The Instruction

The Instruction in the school for Practical Engineer Training is based on lectures, laboratory work, homework, tests and final projects.

The program of studies in the various sections is based on the Practical Engineer curriculum worked out by the professional committees associated with the Overall Committee for the Training of Practical Engineers and Technicians. They are uniform in all the Practical Engineer schools. The coordination of the Programs and the supervision of their performance is carried out by national supervisors and department heads of the Institute.

The student is required to attend classes regularly and to actively participate in them. The student's achievements are under constant review and the continuation of his studies and his qualification depend on them. Examinations take place during the course of studies. At the end of each term examinations are held to determine wheter or not a student is allowed to go on. At the end of courses, final examinations in the main fields of specialization are held. They are partly internal and partly external (by The National Examining Authority).

Towards the end of the course the student is assigned a final project which he has to prepare and work out under the tutorage of the lecturer in charge. The project is to be handed in to The National Authority at the end of the course and the graduate will be required to "defend" his work before this authority when he is called up. (The project is to be presented in the original with two additional copies). The student will be certified and awarded the title "Practical Engineer" only after The National Authority is satisfied that he has passed his examinations and has met the school's requirements, as well as, having successfully "defended" his project.

1. The Department of Practical Electronic Engineering

The Purpose of the Course

The purpose of the course is to provide Science, Industry and Commerce, with trained engineering manpower for positions in Development and Research, System and Circuit Programming and Designing, and the adaptation of electronic equipment and components. Product Design, Locating, Checking, and Measuring Electronic Instruments and Networks and Supervising their repair, Catalogue Preparation and Costing for Development and Industry, Technical Writing, Labour Guidance and Operating Production Departments for their maintenance.

The Subjects of Instruction

I. Scientific Subjects:

1. Mathematics
2. Physics
3. Chemistry
4. Technical English
5. Economy

II. Technical Subjects:

1. Technical Drawing incl. Geometrical Theory
2. Theory of Electricity
3. Metallurgy and Mechanisms
4. General Electronics
5. Electrical Measurements
6. Electrical Motors and their Drive
7. Materials and Instruments (High Voltage)
8. Electronic Circuits
9. Transistors
10. Impulse Circuits
11. Industrial Electronics
12. Principles of Regulation
13. Television, Reception and Transmission
14. Design of Electronic equipment
15. Introduction Computers
16. Numerical Analysis
17. Physics of Atoms
18. Thermo Dynamics

III. Laboratory and Practical Work:

1. Physics
2. Chemistry
3. Electrical Measurements
4. Electrical Circuits

2. The Department of Practical Construction Engineering

The Purpose of the Course

The purpose of the course is to provide engineering manpower for the following: Planning and Programming in Construction, Road Laying and Bridge Construction, Construction Organisation, Checking Construction Detail Work, Static Calculations of Quantities, and Supervision of work on the site.

The Subjects of Instruction

Construction Course -

I. General Subjects:
  1. Work Management
  2. Basic Laws of Building and Construction
  3. Elementary Economy and Accounting
  4. Elments of Programming

II. Scientific Subjects:
  1. Mathematics
  2. Physics
  3. Chemistry
  4. Technical English

III. Technical Subjects:
  1. Theory of Building and Construction
  2. Computation of Statics
  3. Geodesical Measurements
  4. Building Management, Details and Quantities
  5. Building Materials
  6. Technical Drawing (incl. Theoretical Engineering)
  7. Constructional Drawing
  8. Architectural Drainwg
  9. Architectural Designing and Engineering Designing
  10. Civil Engineering
  11. General Engineering

IV. Laboratory and Practical Work:
  1. Physics
  2. Chemistry
  3. Building Quantities
  4. Wood
  5. Soil
  6. Strength of Materials

3. The Department of Practical Electrical Engineering

The Purpose of the Course

The purpose of the course is to provide skilled engineering manpower for the following fields: Programming, Electrical Design and Production, Installations, Supervision and Maintenance.

The Theoretical, Practical and Laboratory work combined, will enable the graduate to fill senior positions in industrial plants and prepare him for work in Installations, Product Control, Management and Organization.

The Subjects of Instruction

I. General Subjects:
   1. Technical English
   2. Organisation and Management in Industry
   3. Calculation
   4. Elementary Programming

II. Scientific Subjects:
   1. Mathematics
   2. Physics
   3. Chemistry

III. Technical Subjects:
   1. Technical Drawing including Theoretical Engineering
   2. Electrical Drawing
   3. Strength of Materials
   4. Disassembly of Machines and Tools
   5. Thermodynamics and Heating Machinery
   6. Theory of Electricity
   7. Electrical Measurements
   8. Electrical Motors
   9. Electrical Devices
   10. Technology of Electrical Products
   11. Electrical Drives and Regulators
   12. Industrial Electronics

IV. Laboratories and Practical Work:
   1. Physics
   2. Chemistry
   3. Electrical Motors
   4. Electrical Measurements

4. The Department of Practical Chemical Engineering

The Purpose of the Course

The purpose of the course is to provide trained engineering manpower for the following fields: The Chemical Industry, including The Food Industry and Research Laboratories. in Industry: The Planning and Supervision of the various stages of Production, from the analysis of raw materials to that of the finished products.

In Research Laboratories: Working alongside the scientist in carrying out experiments and processing their results.

The above-mentioned positions require a broad theoretical foundation, in addition to practical-technical knowledge.

The Subjects of Instruction

I. Technical & Scientific Subjects:
   1. Mathematics
   2. Thermodynamics
   3. Physics
   4. Machinery Parts
   5. Power and Heat Machinery
   6. Theory of Electricity
   7. Technical Drawing
   8. Technical English
   9. Technology
   10. Elementary Programming

II. Chemical Subjects:
   1. General Chemistry
   2. Physical Chemistry
   3. Organic Chemistry
   4. Analytical Chemistry
   5. Basic Calculation of Chemical Technology
   6. Chemical Technology
   7. Action of Chemical Engineering
   8. Measurements and Control
   9. Biology and Bio-chemistry

III. Laboratory and Practical Work:
   1. General Chemistry
   2. Organic Chemistry
   3. Physical Chemistry
   4. Physics
   5. Analytical Chemistry
   6. Electrical Motors

5. The Department of Practical Mechanical Engineering

The Purpose of the Course

The purpose of the course is to provide Industrial Plants and Institutes for Research and Development with trained engineering manpower for the following positions: Technical Management of Medium-sized plants, Production Departments, Experimentation and Development. Designing of Machinery and Installations, Programming and Planning of Production Processes, Production Supervision, Quality Control, Ordering and Checking Modern Equipment and the Instruction of workers in its operation; Maintenance Planning and Supervision.

The Subjects of Instruction

I. General & Scientific Subjects:
    1. Mathematics
    2. Physics
    3. Chemistry
    4. Industrial Management & Control
    5. Production Technology
    6. Elementary Programming
    7. Technical English

II. Technical Subjects:
    1. Technical Drawing including technical engineering
    2. Technical Mechanics
    3. Strength of Materials
    4. Metallurgy
    5. Machinery Parts
    6. Design of Machine Parts
    7. Tool Machines
    8. Mechanical Measurements
    9. Lifting and Transportation Devices
    10. Heat Engineering
    11. Hydraulics
    12. Electrical Devices
    13. Automation

III. Laboratory & Practical Work:
    1. Physics
    2. Chemistry
    3. Measurements
    4. Machinery
    5. Metallurgy

6. The Department of Practical Engineering in Plastics

The Purpose of the Course

The purpose of the course is to provide the Chemical and Plastic Industries with Practical Engineers (trained in Plastics) for the positions in the following fields: Planning, Programming, Application and Supervision of Laboratories in the following fields of research - Processing the results of experiments and checking the product.

The Practical Engineer will work according to the directives of the scientists and will direct the technicians and foremen.

The Subjects of Instruction

I. Technical & Scientific Subjects:

1. Technical English
2. Mathematics
3. Physics
4. Maintenance & Safety
5. Elementary Programming

II. Technical Subjects:

1. General Chemistry
2. In-organic Chemistry
3. Organic Chemistry
4. Chemical Calculation
5. Introduction to Polymers
6. The Chemistry of Polymers
7. Properties and Design of Plastic Raw Materials
8. Treatment of Plastics
9. Design and Production of Plastic Products
10. Planning of Extrusion and Equipment
11. Selected Chapters in the Science of Polymers
12. Technical Drawing
13. Technology
14. Machinery Parts
15. Production Engineering
16. Strength of Materials
17. Electro-Techniques
18. Hydraulics
19. Statistics and Control of Quality

III. Laboratory and Practical Work:

1. Chemistry
2. Chemistry of Polymers
3. Instrumental Chemistry
4. Treatment of Plastic Materials
5. Physics
6. Electronics
7. Mechanics (workshop)
8. Design and Production of Plastic Products
9. Designing of Extrusion
10. Checking and Identification
11. Measurements and Control
12. Power engines and Heat
13. Physical Chemistry

7. The Department of Practical Agromechanical Engineers

The Purpose of the Course

The purpose of the course is to train Practical Agromechanical Engineers. They will acquire a broad foundation in the field of General Mechanization and they will specialize in Agricultural Mechanization and Methods of Work. Practical Agromechanical Engineers will be able to fit into the fields of Production, Maintenance, Research and Planning in Agromechanics and the Advancement of Agriculture in the country.

The Practical Engineer will work according to the directives of scientists and will direct technicians and labourers.

The Subjects of Instruction

I. Technical, Scientific Subjects:

1. Technical English
2. Mathematics
3. Physics
4. Chemisty
5. Drawing
6. Theoretical Engineering
7. Economy, Pricing and Accounting
8. Psychology and Human Relations
9. Management and Organisation
10. Basic Programming

II. Technical Subjects:

1. Theory of Strengths
2. Machinery Parts
3. Theory of Measurements
4. Technical Engineering
5. Hydraulics (Water and Oil)
6. Electricity and Electrical Devices
7. Theory of Materials
8. Machinery, Turning, Milling & Shaping Tools and their Treatment
9. Heat and Energy
10. Production
11. Designing of Production Equipment
12. Transportation and Lifting Equipment
13. Fuel Engines and Tractors
14. Building and Construction
15. Irrigation
16. Agricultural Machinery
17. Systems of Cultivation and Soil
18. Organisation with the help of Computers

8. The Practical Engineering Department of Physics

Optical and Electro-Optical Specialization

The Purpose of the Course

The purpose is to train Practical Engineers in Optics and Electro-optics in the following fields: Planning and Operation, Optical and Electro-optical instruments for precise Checking and Measuring within the various branches of Traditional Optics and Modern Optics including Non-Linear Optics. The Practical Engineer will be responsible for the optical equipment and its operation to be in good running order and for independent planning of Optical and Electro-optical Systems.

The Subjects of Instruction

I. General and Scientific Subjects:

1. Mathematics
2. Physics
3. Technical English
4. Chemistry
5. Economy

II. Technical Subjects:

1. Basic Electronics
2. Introduction to Optics
3. Introduction to modern Physics
4. Introduction to Computers
5. Numerical Analysis
6. Planning of Optical Arrangements
7. Photometrics and Optics of the Eye
8. Spectroscope and Spectro Measurements
9. Atomic Physics
10. Thermodynamics
11. Interferometrics
12. Sources of Light and Waves
13. Optics of Crystals
14. Electro Optica
15. Microscope
16. Liniaric Amplifier

9. The Practical Engineering Department of Metallurgy and Material Research

The Purpose of the Course

The purpose of the course is to provide skilled manpower for senior positions in Heavy Industry, Metallurgy and Material research. In Metallurgy they will mainly specialize in the Theory of Metals, Composites and alloys.

In Material Research they will specialize in crystal enlargement and the qualities of thin layers, the qualities of insulations and polymeres. The Practical Engineer will be responsible for Laboratories in which new materials are inspected and their qualities examined. The Practical Engineer will also be responsible for Metallurgical Laboratories and Analytical Laboratories for material examination.

The Subjects of Instruction

I. General and Scientific Subjects:
    1. Mathemati
    2. Physics
    3. Chemistry
    4. Technical English
    5. Economy

II. Technical Subjects:
    1. Physics: Electricity, Mechanics, Magnetism
    2. Physical Metallurgy
    3. Atomic Physics
    4. Analytical Chemistry
    5. Electro-Chemistry
    6. Thermodynamics
    7. Theory of Crystals
    8. Ceramics
    9. Chemical Metallurgy
    10. Industrial Metallurgy
    11. Science of Molecules
    12. Properties of Electronic Materials
    13. Polymers and Plastics Materials
    14. Treatment of Materials

10. The Preparatory Course for Candidates for Practical Engineering

The School for Practical Engineer Training will enable graduates of three years of regular or vocational high school to achieve a four year high school standard in order to be eligible for the regular classes of practical engineering.

The Subjects of Instruction in the Prep. Course

1. Bible studies
2. History
3. Hebrew
4. Mathematics
5. Physics
6. Chemistry
7. English

a. Entrance Requirements

1. Graduates of Vocational High Schools
2. Graduates of regular high schools (Candidates require supplementary knowledge in their field of specialization (provided in the Prep. course) such as Mathematics, Physics, Chemistry, English and Hebrew on a four year vocational high school standard).

At the end of the Prep. course the candidates will be required to pass examinations given by the Ministry of Education and Culture.

b. Entrance Examinations

Examinations in the following subjects will be held: Mathematics, Physics, Chemistry, and English.

c. Examinations, Final Project and Graduation Certificate

Examinations will be held during the course of studies. At the end of each term transitional examinations are held determining admission to the next term.

At the end of the course final examinations are held in the main subjects of specialization. The examinations are partly internal and partly external given by the National Examining Board. At the end of his studies the candidate is assigned a subject for his final project which is to be handed in (original plus two copies) and which he is required to defend before a committee of examiners.

At the end of two years of study the graduate is entitled to the official certificate of "Practical Engineer" provided he has both, successully passed his examinations as we well defended his final project.

d. The duration of the regular day course is two years and that of the evening course - four years.

e. Tuition: I. L. 900 per year.

f. Further Details for Registration

Candidates are required to submit -

1) A Matriculation Certificate (or a certificate indicating 12 years of studies)
2) Curriculum Vitae
3) Three pictures
4) I. L. 30 - Registration Fee
5) "Reserve Duty" card or Active Duty Termination Certificate. The candidate will have to fill in an Application form and be interviewed by a board of admissions.

The registration takes place at the offices of the School for Practical Engineers.

Tuition

For those studying in regular day courses	- I. L. 900 per year
For those studying in evening courses	- I. L. 550 per year
Each Registration Fee	- I. L. 30

External Examinations and Final Projects

External exam. fee	- I. L. 7
The final project fee	- I. L. 50

PRACTICAL ENGINEERS TRAINING SCHOOLS

Place	Name of School	Address & Telephone	Subjects of Study
Jerusalem	"Ort" School for Practical Engineers	42 Hanegev Str. Tel. 25-295 08.00-14.00	Day & Evening Courses: Electronics, Mechanics Civil (Pre. Practical/ Engineers)
Jerusalem	Higher School for Technology	177 Bait VaGan Str. Tel. 66781 08.00-14.00	Day Courses: Computers Electronics
Jerusalem	Haddasah Institute Sligsberg School	16 HaRav Kuk Str. Tel. 25400, 25403 08.00-14.00	Day Courses: Computers, Electronics
Beer-Sheva	School for Practical Engineers and Technicians	71 Bazel Str. Schuna Alef Tel. 057-3290 08.00-14.00	Day & Evening Courses: Electronics Mechanics Chemistry (Pre. Practical Engineers)
Tel-Aviv	"Ort" School for Practical Engineers Yad-Singalovski	28 Derech HaTayasim Tel. 761480 08.00-19.00	Day Courses: Electronics, Electricity Mechanics
Tel-Aviv	School for Practical Engineers, Tel-Aviv University	(University Str.) 31 HaUniversita Str. Tel. 414069 08.00-14.00	Day & Evening Courses: Electronics
Tel-Aviv	National School for Practical Engineers	14 Lessin Str. Tel. 268126	Evening Courses: Electronics, Mechanics Civil (Pre. Practical Engineers)
Netanya	National School for Practical Engineers	Midreset Rupin Emek Hefer Tel. 053-98383 08.00-12.00	Day Courses: Civil and Architecture

./.

Place	Name of School	Address&Telephone	Subjects of Study
Haifa	National School for Practical Engineers	Haifa-Hadar Tel. 04-68101 08.00-12.00	Day&Evening Courses: Electronics, Electricity, Chemistry, Civil, Plastics, Mechanics
Nazareth	National School for Practical Engineers	Opposite "Eged" Stations Tel. 065-54831	Day&Evening Courses: Mechanics, Civil (Pre. Practical Engineers)
Zefat	National School for Practical Engineers	Amal School Blauchild Tel. 067-30284	Evening Courses: Electronics (Pre. Practical Engineers)
Tel-Chai	National School	Moaza Ezorit Galil Elion Tel. 067-40696	Day Courses: Mechanics, Agriculture
Emek-Hayarden	National School for Practical Engineers	Moaza Ezorit Emek HaYarden, Zemach Tel. 067-50026/7 08.00-15.00	Evening Courses Electronics (Pre. Practical Engineering)
Hadera	Regional Institute Menashe	(President Str.) 73 HaNasy Str. Tel. 063-2676	Evening Courses: Electronics (Pre. Practical Engineers)
Eilat	National School for Practical Engineers	Ing. D Reshef Michrot Timna Tel. 056-2121	Evening Courses: Mechanics (Pre. Practical Engineers)

The Technician Training Department

A. The Purpose of the Training

The school's purpose is to train technicians, giving them an extensive, skilled and advanced technical engineering education to supply the market's demands. This training corresponds to the curriculum of similar educational institutes abroad. The technicians form the link connecting the Practical Engineer with the skilled labourer. He activates ideas putting them into practice, having the training to carry out the following:

1. Forming part of a research team - together with Engineers and Practical Engineers.
2. Development and experimentation.
3. Planning and calculating small projects (designing)
4. Planning, operation, maintenance.
5. Organizing and Managing small plants and departments in both medium sized as well as large industries. Such positions require, on the one hand, a good theoretical foundation in order to understand the graduate engineer and the practical engineer and their way of thinking; and on the other - an extensive knowledge of his fields of work. The Technician should also be acquainted with the skilled and ordinary labourer's working principles and methods.

B. The Three Courses of Study

1. The regular day course - lasts for one intensive year of studies - 36-40 hours of instruction per week.

   According to plan - 1800 hours of instruction, all together.

2. The accumulative study course - :

   (a) The school enables those interested to participate once or more times a week in the afternoon or evening courses, on a part-time accumulative basis.

   (b) The interested participants learn: Mathematics, Physics, Chemistry, Technical Drafting and additional subjects.

   (c) The above mentioned subjects are common to all course of studies for technicians.

   (d) The entrance requirements are the same as for No. 1 and No. 2 courses of studies for technicians.

   (e) Graduates in the above mentioned subjects are entitled to the following:
      (1) Exemption from the following year's entrance exams.
      (2) Exemption from the subjects taken at either one of the two regular courses of studies.

C. The Establishment of New Branches of the School

(f) Courses according to the third course of studies (accumulative study course) will be held also in areas where there are no such schools, on condition that registration numerically justifies the opening of such classes. Those interested should contact The Institute's main office in Tel-Aviv.

D. Entrance Requirements

Admittance to the various courses of studies for Technicians will be on the following basis:

1. Possession of either the regular or the external Matriculation Certificate.
2. Completion of studies at either a regular or a four-year vocational high school (according to their courses of studies).
3. Graduates of either three year non-vocational or three year vocational high schools will be accepted to the Prep. course intended to enable such candidates to reach the four year high school graduate standard required. Those passing the Prep. Course's final exams. as well as the Ministry of Education's external examinations.. (equivalent to four year vocational high school examinations) will be admitted to the courses of their choice without entrance exams.
4. The course for Technicians will also accept three year vocational high school graduates or those possessing that equivalent, certified by the Ministry of Education. Such students will be able to supplement the lack in their education in order to achieve the required standard, namely, that of a 4 year vocational high school. They will also be required to sit for the Ministry of Education's external examinations.
5. The process of admission depends on the following:
   a) Registration and Filling in a personal questionnaire
   b) A personal interview
6. Graduates of the third year of high school who have passed the prep. course and have reached the fourth year graduate standard required, will be admitted.

Note:

a. Only fourth year Vocational High School graduates, or possessors of a Matriculation Certificate with some professional experience, or third year Vocational High School Graduates who take the Prep. course will be admitted to the following departments: Metallurgy, Electrical Engineering, Mechanization and Control, Textiles, Industry and Management, Vehicles and Plastics.

b. In certain cases the candidate will be required to take an entrance examination and/or psychotechnical tests.

7. Candidates possessing a Matriculation Certificate or four year Vocational High School graduates or third year high school graduates who will take the Prep. course or will otherwise achieve the fourth year graduate standard required, will be admitted to the following departments: Electronics, Construction, Chemistry, EnvironmentalSciences Food,Industry, Agriculture Nuclear Technology, Photography and Cinematography.

E. Instruction

In the Technician Training School instruction is based on the following: lectures, laboratory work, homework, tests, final projects and practical work. The program of studies in the various departments is based on the technician's Curriculum which has been worked out by the professional committees associated with the Overall Comitee of Technicians and Practical Engineers, and which is uniform in all the Technicians' training schools.

Coordination of programs and the supervision of their operation is carried out by Governmental Supervisors and Department Heads at the Institute.
The student is required to attend regularly and participate actively during the course of studies. His achievements are constantly under inspection and the continuation of his studies as well as his Technician's Certificate depend on them.

Tests are held during the course of studies. At the end of each term or stage, transitional examinations to the next are held. At the end of the whole course of studies,final examinations are held in writing in the major fields of specialization. These examinations are partly internal and partly external (given by the National Examining Board).

F. Final Examinations

a. At the end of the whole course of studies the student will have to take final governmental examinations to be determined by the National Examining Board, according to the professional Committees' recommendations.

b. At the end of the course of studies and after passing the final examinations the student is to hand in a final project demanding about 250 hours of independent work.

c. The final project is to be certified by his advisor and is to be checked by an external examinor. The student is to be orally tested by both of them.

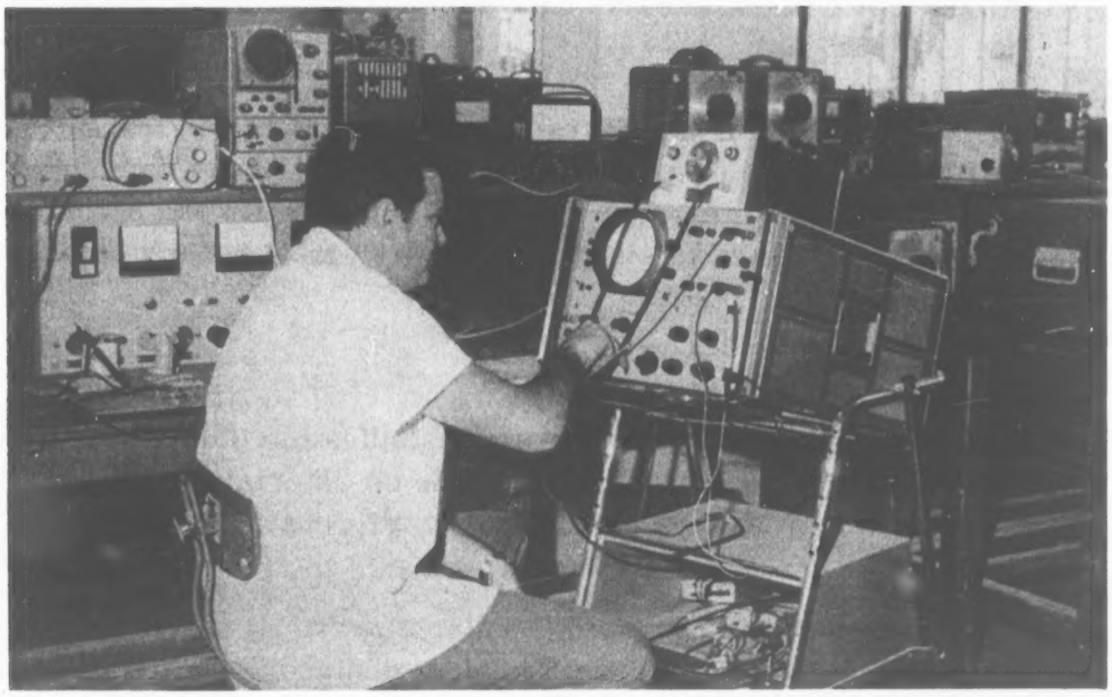
d. The student with passing grades in the major subjects required for certification in each department, may hand in his final project.

G. Awarding Diplomas

Final Certificate

a. A final state certificate from the Technician Training School will be awarded a student who has successfully completed his course of studies including the final project and external examinations.

b. A Technician's Certificate will be awarded to the graduate after a two year period of practical work in industry. A professional committee in each department will check, certify and evaluate his practical experience. Practical experience before the during the course of studies will be credited according to the committee's recommendations.



The Courses of Studies in the Technician Training School

1. The Electronic Technician Training Course

The Purpose of the course is to provide technological manpower skilled in the following: Circuit and Network Engineering Planning, Component Positioning, Experimentation and Surveying, the Preparation of Standards and Technical Specifications, Department Management and Supervision, Production and Maintenance, Labour Guidance, Locating Breakdowns in Electronic Equipment and Supervising their Repair, Estimating Labour and Materials, Technical Reports, Product Design and Instructions for Repair and check up.

The Subjects of Instruction

I. General and Scientific Subjects:

1. Mathematics
2. Physics
3. Chemistry
4. Hebrew and Technical Reports
5. Technical English
6. Citizenship

II. Technical and Technological Subjects:

1. Technical Drawing and Theory of Engineering
2. Technology of Metals
3. Theory of Electricity
4. Drawing (Schematic)
5. Electrical Motors and their Drives
6. General Electronics
7. Electrical and Electronical Measurements
8. Materials and Devices (High Voltage)
9. Theory of Fields and Grids
10. Electronical Circuits
11. Transistors
12. Theory of Impulses
13. Industrial Electronics
14. Computers
15. Transmission and Reception
16. Regulation and Control
17. Technology and Components of Electronic Equipment

18. Television
19. Very High Frequencies and Micro Waves
20. Aerials, Transmission Lines and Waves' Expansion
21. Telecommunications

III. Laboratory and Practical Work:

1. Physics
2. Chemistry
3. Electronic and Electrical Measurements
4. Laboratory for General Electronics
5. Construction of Devices
6. Repairs of Circuits and Devices
7. Television and Telecommunication Laboratory

2. The Nuclear Technician Training Department

The Purpose of the Course is to train technological manpower giving them a high standard of theoretical and practical knowledge in order to work with scientists and engineers engaged in research in the field of Energetics, and to carry out laboratory experiments, the operation of electronic networks, the measurement of quantities both Hydraulic and Pneumatic which are an inseparable part of a Nuclear Reactor.

The Subjects of Instruction

I. General and Scientific Subjects:

1. Hebrew Expression and Technical Reports
2. Safety, Hygiene and Fire Extinguishing
3. Safety
4. Mathematics
5. Physics
6. Chemistry
7. Introduction to Systems of Organisation
8. Programming in Fortran Language

II. Technical Subjects:

1. Technical Drawing
2. Technology of Metals and Special Materials
3. Technology of Vacuum and Caryogenetics
4. Electronics and Electro Technics
5. Thermodynamics
6. Electronical and Pneumatical Regulation and Control
7. Nuclear Physics
8. Physics of Reactors
9. Engineering of Reactors
10. Nuclear Instrumentation
11. Inspection of Radiation Dangers
12. Foundations of Chemical Engineering
13. Mechanical Arrangements in the Reactor

3. The Electrical Technician Training Department

The Purpose of the Course is to provide skilled technological manpower for the following fields: Electrical Design and Production, Installation, Supervision and Maintenance. The combined theoretical, practical and laboratory knowledge acquired, enables the graduate to hold positions in industrial plants and qualifies him for positions in Installation, Product Inspection, Management and Organization.

The Subjects of Instruction

I. General and Scientific Subjects:

1. Expression and Technical Reports
2. Technical English
3. Mathematics
4. Physics
5. Chemistry
6. Safety, Hygiene and Fire Extinguishing
7. Basic Economy and Accounting
8. Public Relations and Organisation
9. Maintenance
10. Programming

II. Technical Subjects:

1. Drawing and Engineering Theory
2. Theory of Strength and Machinery Parts
3. Heat Engineering
4. Technology of Materials
5. Basic Electronics
6. Mechanics

III. Special Subjects:

1. Theory of Electricity
2. Electrical Drawing and Schematics
3. Technology and Electric Installations
4. Electrical Measurements
5. Theory of Light
6. Electrical Motors and their Drive
7. Inspection and Control
8. Industrial Electronics
9. Design of Devices
10. Production of Electrical Products
11. Control and Instrumentation

IV. Workshop and Laboratory:

1. Mechanical Workshop
2. Laboratory for Measurements and Devices
3. Laboratory for Electrical Machinery
4. Laboratory for Electronics
5. Laboratory for Chemistry and Physics

4. The Textile Technician Training Course

The Purpose of the Course is the training of technicians for the Textile Industry. The role of the Textile Technician in the plant includes Product Designing, the Preparation of Technical Instructions for Operations, The Preparation of Production Planning, and of Product Costing, Dealing with Laboratory Tests of Product and Raw Material, Adaptation of the Product to the Existing Equipment, the Coordination of the Output of each Machine in the System, Supervision and Checking of Product Quality and Technical Management of Certain Departments.

The fields of specialization are: Metallurgy and Hydrology.

The Subjects of Instruction

I. General and Scientific Subjects:

1. Hebrew Written Expression and Technical Report
2. Technical English
3. Mathematics
4. Physics
5. Chemistry
6. Maintenance of Material
7. Management and Human Relations and Pricing
8. Efficiency, Labour Productivity and Production Processes
9. Safety, Hygiene and Fire Extinguishing
10. Foundations of Economy and Accounting

II. Technical Subjects:

1. Technical Drawing and Descriptive Design
2. Machinery Parts and Strength of Materials
3. Mechanical Energy and Work
4. Theory of Electrical Motors and Electricity
5. Maintenance of Equipment

III. Supporting Subjects:

1. Professional Computations
2. Raw Materials in Textile
3. Inspection of Textiles
4. Colouring and Finishing
5. Theory of Colours
6. Technology of Weaving
7. Theory of Knotting
8. Disposition
9. Technology of Spinning
10. Synthetical Fibers
11. Theory of Knitting

5. The Chemical Technician Training Department

The Purpose of the Course is to train technicians for the Chemical Industry and its laboratories. The Technician's role in the Laboratories is to carry out complicated experiments using modern equipment and progressive industrial working techniques, under the scientist's and practical engineer's supervision. The technician's task is to supervise the various stages of production in order to avoid breakdowns and as far as necessary to overcome them.

The Subjects of Instruction

I. General and Scientific Subjects:

1. Hebrew, Expression and Technical Language
2. Technical English
3. Mathematics
4. Physics (incl. Basic Electricity)
5. Biology

II. Technical Subjects:

1. Technical Drawing
2. Technology of Metals and Strength of Materials
3. Machinery Parts
4. Mechanical Energy and Machines
5. Heat Energies
6. Safety
7. Maintenance

III. Supporting Subjects:

1. General Chemistry and Anorganic Chemistry
2. Analytical Chemistry, Qualitative and Quantitative
3. Physical Chemistry
4. Chemical Computation
5. Organic Chemistry
6. Intorduction to Bio-Chemistry
7. Introduction to Micro-Biology
8. Chemical Engineering
9. Industrial Chemistry
10. Instrumental Chemistry
11. Measurements and Control
12. Glass Blowing

13. Metal Working
14. Organic Chemistry of Polymers
15. Physical Chemistry of Polymers
16. Technology of Plastic Materials
17. Machinery for Treating Plastic Materials
18. Checking of Plastic Materials
19. Plastic Materials in Engineering
20. Bio-chemistry
21. Industrial Microbiology
22. Food Engineering
23. Technology of Nutriments
24. Checking of Food Quality and Values

IV. Management Subjects:

1. Human Relations
2. Labour Organisation
3. Accounting and Pricing

6. The Metal Technician Training Department

The Purpose of the Course is to train manpower giving a general and basic knowledge in the field of Metal-Work and its auxiliary subjects. The qualified technician will deal with subjects of technical procedure in small to medium sized plants and production departments in medium to large sized in which he will operate in the following fields: Experimentation and Development, Machinery and Installation Planning, Planning and Programming Production Procedures, Supervision on Production and Quality Control, Ordering and Checking Modern Equipment and Labour Operation.

The Subjects of Instruction

I. General and Scientific Subjects:

1. Hebrew, Expression, Writing and Technical Report
2. Technical English
3. Economy
4. Safety and Hygiene
5. Mathematics
6. Physics
7. Cehmistry
8. Statistics

II. Technical Subjects:

1. Technical Drawing
2. Technical Mechanism
3. Theory of Strength and Elasticity
4. Machinery Parts
5. Design of Machinery Parts
6. Hydraulics
7. Hydraulic and Pneumatic Systems
8. Heat Engineering
9. Electrical Motors and Devices
10. Theory of Measurements
11. Industrial Electronics
12. Theory of Materials
13. Chipping Methods
14. Chipping Machines
15. Automation
16. Planning of Production Installations
17. Casting Models
18. Fixtrues and Devices

19. Preparation for Manufacturing
20. Process of Metal Treatment:
    - a. Coating and Glueing
    - b. Treatment by Pressures
    - c. Castings
21. Plastic Materials

III. Subjects of Management and Production:

1. Industrial Engineering
2. Accounting and Pricing
3. Maintenance

IV. Laboratories:

1. Physics
2. Chemistry
3. Strength of Materials
4. Metallurgy and Heat Treatment
5. Machinery Parts
6. Measurement and Checking of Quality
7. Mechanical Tools
8. Electricity and Electronics
9. Practical Work in Workshops in the Sphere of Production

7. The Photography and Cinematography Technician Training Department (Electro-Optical Specialization)

The Purpose of the Course is to provide manpower of a high technical standard for the following: Joining teams of research and development of modern methods and techniques in photography and cinematography. Organizing and Managing Photographic Labs and Guiding Staff, Photography and Filming in Studio Conditions as well as in Field Conditions, by day as well as by night, Technical and Scientific Photography and Film Editing, cursory knowledge of chemical processes in photography and film development and of studio structure and equipment, Maintenance of Optical-Technical and Electronic Equipment.

The Subjects of Instruction

I. General and Scientific Subjects:

1. Mathematics
2. Basic Physics
3. Mechanics
4. Basic Chemistry
5. Hebrew, Expression and Technical Reports
6. Technical English

II. Technical Subjects:

1. Optics
2. Electricity
3. Electronics
4. Technical Drawing
5. Photographical Measurements
6. Geodesics
7. Photography
8. Programming
9. Safety
10. Maintenance

III. Practical Work and Laboratory:

1. Photography and Optics
2. Electronics
3. Electricity
4. Chemistry

8. The Photography and Cinematography Technician Training Department (Specialization in Films and T. V.)

The Purpose of the Course is to provide technically educated manpower suitable for new technological developments in the fields of Photography, Cinematography, Audio and T. V.

The Subjects of Instruction

I. General and Scientific Subjects:

1. Hebrew, Technical Reporting and Expression
2. Mathematics
3. Physics
4. Chemistry

II. Technical and Technological Subjects:

1. Electricity
2. Optics
3. Electronics
4. Planning
5. Photography
6. Special Techniques
7. Filming
8. Filming and Television
9. Colour Photography and Filming
10. Development and Printing
11. Sound
12. Editing
13. Television
14. Maintenance and Safety

9. The Vehicular Technician Training Department

The Purpose of the Course is to provide technically educated manpower suitable for the Modern Technological development in the field of internal combustion engines in general and in motor vehicles in particular, as well as in managing motor vehicle service stations and production plants.

The Subjects of Instruction

I. General and Scientific Subjects:

1. Hebrew, Technical Reports & Expression
2. Technical English
3. Mathematics
4. Physics
5. Chemistry
6. Theory of Commerce and Accounting
7. Human Relations and Management

II. Technical Subjects:

1. Technical Drawing
2. Technical Mechanics
3. Technology of Metals and Materials
4. Machinery Parts and Strength of Materials
5. Heat Engineering and Thermodynamics
6. Basic Electronics
7. Lifting Implements

III. Special Subjects:

1. Theory of Engines
2. Theory of Vehicles
3. Theory of Motorcars
4. Compressors, Pumps and Turbines
5. Pneumatics, Hydraulics and Devices
6. Theory of Electricity and Electric Motors
7. Planning, Organisation & Management of Garages
8. Safety Hygiene at Work

IV. Practical Work and Workshops:

1. Physics
2. Chemistry
3. Electricity
4. Machinery Parts
5. Theory of Engines
6. Vehicle Engineering
7. Hydraulics and Pneumatics
8. Theory of Automobiles and Diagnosis

10. The Industry and Management Technician Training Department

The Purpose of the Course is to provide technologically trained manpower of a high standard to fit into industrial plants and management in the following positions: Planning and Programming Production Procedures, Production Supervision, Quality Control, Industrial Organization and Management, Labour Assessment and the Improvement of Methods, the Analysis of Operations.

The Subjects of Instruction

I. General and Scientific Subjects:

1. Hebrew, Expression and Technical Reports
2. Technical English
3. Physics
4. Chemistry
5. Mathematics
6. Statistics

II. Technical Subjects:

1. Technical Drawing
2. Basic Electronics
3. Devices and Electrical Machinery
4. Heat and Energy in Industry
5. Strength of Materials
6. Machinery Parts
7. Materials and Processes
8. Hydraulics and Pneumatics

III. Industrial Economy Subjects:

1. Economical Terms
2. Industrial Economy
3. Accounting and Pricing
4. Profitableness Analysis and Budget Follow-up
5. Marketing

IV. Organisation and Management Subjects:

1. Organisation Methods
2. Industrial Psychology
3. Industrial Sociology
4. Communications, Reports, Forms
5. Management and Organisations Aspects in Computerisation
6. Safety and Hygiene
7. Labour Laws and Councils in Production

V. Production Engineering Subjects:
1. Work Measurements
2. Improvements
3. Encouragement Wages
4. Planning and Lay-out; Interior Traffic
5. Maintenance
6. Automation

VI. Subjects of Planning and Inspection of Production:
1. Preparation of Produce
2. Designing of Produce
3. Inspection and Follow-up
4. Registration and Stock Inspection

VII. Subjects of Quality Inspection:
1. Quality Control
2. Sampling
3. Operational Research

VIII. Computers:
1. Introduction to Computer Theories
2. Basic Programming

11. The Training Department for Technicians in Construction

The Purpose of the Course is to provide technically educated manpower suitable for modern technological developments in the field of Construction in all its stages. The Technician links field work with the Plant's technical section. He has to prepare plans, independently, (both architectural and engineering) within the scope of his training. He is responsible for carrying out working drawings (or plans) according to the Architect's or Engineer's instructions, for the calculation of quantities, offering tenders for the commencement of Construction, Costing Analysis, Current Administrative and Technical Supervision, constantly keeping in contact with the Planner, carrying out surveying with the help of instruments, Organizing work in construction from a technical point of view, strict supervision of the quality of materials and the work carried out by sub-contracting, Safety Supervision.

The Subjects of Instruction:

I. General and Scientific Subjects:

    I. Hebrew , Expression and Technical Report
    2. Mathematics
    3. Technical English
    4. Physicis
    5. Chemistry
    6. Geodesia
    7. Theory of Building and Construction
    8. Quantity Calculation
    9. Technical Drawing
    10. Strength of Materials
    11. Soil Movement
    12. Electricity
    13. Building Materials
    14. Planning of Buildings and their Restrictions
    15. Safety
    16. Labour Management and Equipment for Roads

II. Economical Subjects:

    1. Economy
    2. Pricing and Budgets
    3. Statistics
    4. Maintenance and Safety

12. The Metallurgical Technician Training Department

    (in preparation)

13. The Ecological Technician Training Department (fields of specialization: Geology, Metallurgy, Hydrology)

    (in preparation)

14. The Aeronautical Technician Training Department

    (in preparation)

A. **Arrangements for Registration for the Practical Engineering and Technician Training Schools:**

For Registration the Candidate is to fill in a questionnaire and provide the following:

1. A certificate confirming 12 years of study (regular or vocational high school) including the final list of grades or Matriculation Certificate.
2. An Identity Card.
3. Documents certifying practical experience in a specific field (for non-vocational, four year, high school graduates) and previous training in relevant courses.
4. A certificate of postponement or exemption from Military Service.
5. Three passport pictures.
6. IL.30.- - registration fee.

The candidate is to be invited to an interview before a Board of Admission. Regarding registration and further details this annual should be consulted.

B. **Tuition**

Tuition for the 1970/71 school year is according to the following:

Technicians: Both students of the regular day courses, and of the evening courses who are graduates of a four year vocational high school - IL.1450.- for the entire course of studies.

Graduates of a three year vocational high school - the above-mentioned sum with an additional IL 200.- for the required pre-courses.

SCHOOLS FOR TECHNICIANS

Place	Name of School	Address & Telephone	Subjects of Study
Jerusalem	Haddasah Institute Bait Sligsberg	16 HaRav Kuk St. Tel. 25400, 25403	Day Scientific Photography
Beer Sheva	School for Practical Engineers and Technicians	71 Bazel Str. Schuna Alef Tel. 057-3290	Electronics, Chemistry Civil Instrumentation and Control Electricity
Tel-Aviv	"Ort" Yad-Singalovski	28 Derech HaTayasim Tel. 762291	Evening Electronics
Tel-Aviv	School for Technicians	12 Shefa-Tal Str. Tel. 269360	Day & Evening Electronics, Chemistry Civil Instrumentation & Control. Photography & Filming, Industry & Management; Electricity, Metal, Measurements. Evening Chemistry
Givatayim	"Ort" Technikum	15 Golomb Str. Tel. 729795	Evening: Mechanics (Specializing in Cooling Systems)
Netanya	Midreset Rupin	Emek Hefer Tel. 053-98383	Mechanics, Chemistry, Agriculture, Electronics
Haifa	National School	Hadar Tel. 04-68101	Day & Evening: Mechanics, Electricity, Electronics, Chemistry Civil , Instrumentation and Constrol, Measurements
Shaar-Hanegev	Technical Ulpana	Moaza Ezorit Tel. 04-910519	Evening: Mechanics, Agriculture
Yzrael	Technical Ulpana Ohel-Sarah	Moaza Ezorit Tel. 065-22956	Evening: Mechanics, Agriculture

./.

Place	Name of School	Address&Telephone	Subjects of Study
Tel-Hai	Technical Ulpana	Moaza Ezorit Galil Elion Tel. 067-40969	Day: Mechanics, Agriculture
Qiryat-Bialik	"Ort" named after Levinzon	HaGalil Str. Tel. 04-727724	Evening: Mechanics
Ramat-Gan	The Shenker Textiles Institute	24 Anna Frank Str. Tel. 72-3359	Day: Textiles

SCHOOLS FOR TRAINING QUALIFIED VOCATIONAL INSTRUCTORS

Preface

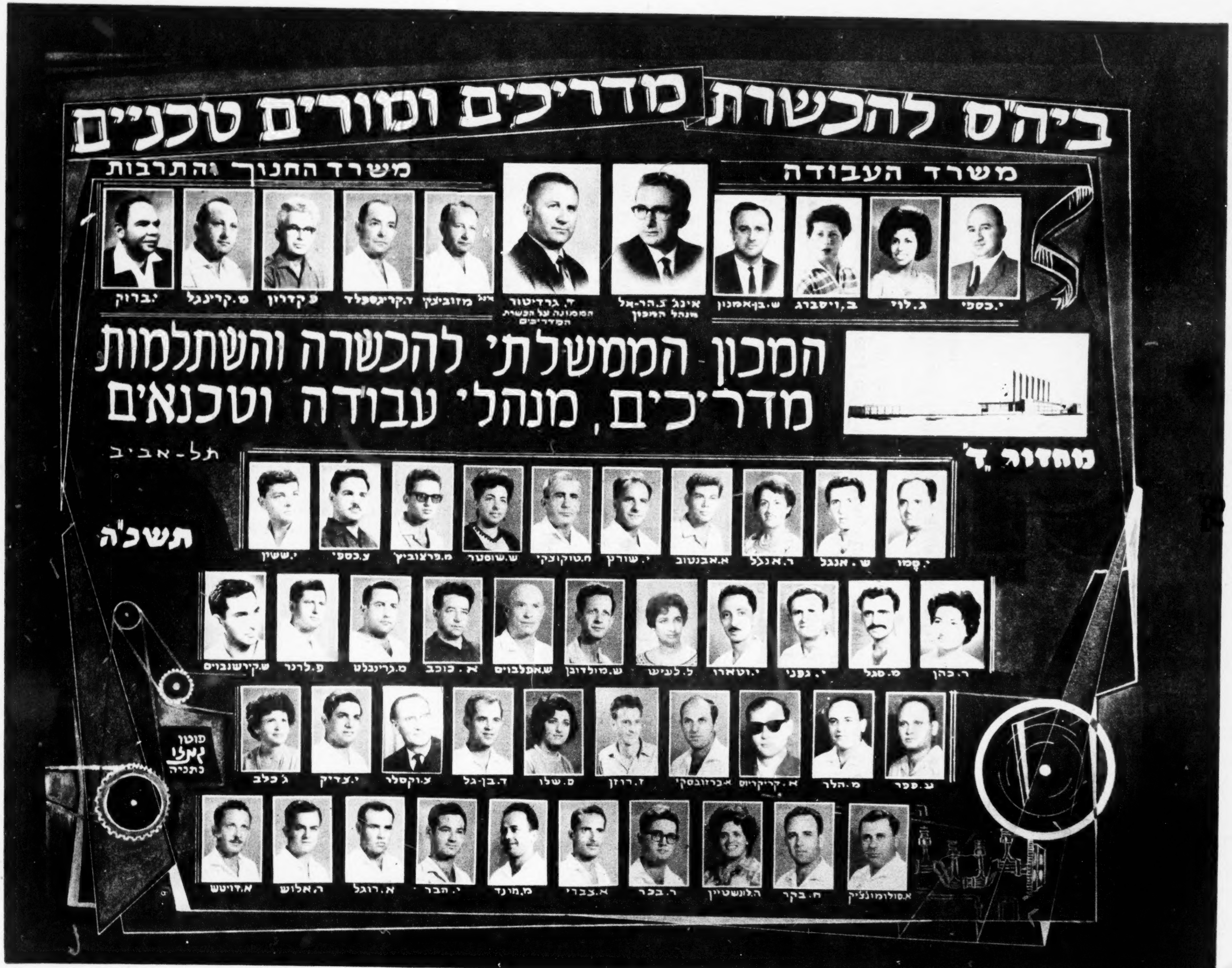
The Institute for Instructors training, founded in 1958, whose principal was the engineer the late Mr. Eliahu Brown, served as the forerunner for the school for training instructors and teachers of technological subjects and gained its status with the establishment and growth of the General State Institute (THE INSTITUTE)

Beginning in the mid 50's a shortage of skilled vocational instructors, well grounded in theory with a good teaching personality, was already felt. Many complicated problems arose regarding the curriculum and the general policy of the training. One of the basic questions was: whether the Instructor should receive theoretical grounding in subjects such as: Mathematics, Physics, Chemistry, Pedagogy, Psychology, Occupational Analysis, Vocational Education Problems, Organizing Discussions, Development, Preparation and Use of Visual Aids and other subjects in the same vein or whether the Instructor should receive a firmer grounding in a limited curriculum with special emphasis on a specific subject.

At the beginning the training courses were short, however, 6 to 12 intensive study days were added to them. In time, however, the Instructor training courses assumed a certain definite form which is now nation wide. There are certain condiderations according to the field of specialization and hetrogeneous classes are divided. As the years passed the Instructor training was extended to include additional bi-annual evening courses for qualified instructors wishing to become full fledged teachers. This course of studies has been going on for the past 4 years. Today the school and its branches number 550 students.

The School for Training Qualified Instructors and Qualified Teaching Instructors has a good chance of developing as the Ministry of Education and Culture demands a Certificate of Qualification from all instructors and teachers of technical subjects, engaged in high schools. The Certificate of Qualification confers many benefits to its possessor and chiefly effords a better status for which reason the instructors and teaching instructors strive to acquire it.

The Ministry of Education and Culture has shown a great deal of interest in the school and its development.


ביה"ס להכשרת מדריכים ומורים טכניים
משרד העבודה
משרד החנוך והתרבות
י. כספי
ג. לוי
ב. ויסברג
ש. בן-אמנון
אינג' צ. הר-אל
מנהל המכון
ד. גרדיטור
הממונה על הכשרת המדריכים
אינג' מזוביצקי
ז. קרינספלד
פ. קדרון
מ. קרינגל
י. ברוק
המכון הממשלתי להכשרה והשתלמות
מדריכים, מנהלי עבודה וטכנאים
תל-אביב
מחזור "ד"
תשכ"ה
י. סמו
ש. אנגל
ר. אנגל
א. אבנטוב
י. שורק
ח. טוקוצקי
ש. שוסטר
מ. פרצוביץ
צ. כספי
י. ששון
ר. כהן
מ. סגל
י. גפני
י. וטארו
ל. לעיש
ש. מולדובן
ש. אפלבוים
א. כוכב
מ. גרינגלט
פ. לרנר
ש. קירשנבוים
ע. פפר
מ. הלר
א. קריקריוס
א. ברזובסקי
ז. רוזן
ס. שלו
ד. בן-גל
צ. וקסלר
י. צדיק
ג' כלב
א. סולומונצ'יק
ח. בקר
ה. לונשטיין
ר. בכר
א. צברי
מ. מונד
י. הבר
א. רוגל
ה. אלוש
א. דויטש
פוטו
גינזי
נתניה

The Instructor Training Department

The Purpose of the Course is to provide the High School System and the various Vocational Training Centers with manpower, possessing a general education, skilled in technological subjects and pedagogical-vocational subjects, in particular, for the purposes of instruction in schools.

The Subjects of Instruction:

I. General and Scientific Subjects:

1. Hebrew Written Expression
2. Technical English
3. Citizenship
4. Mathematics
5. Physics

II. Pedagogic Subjects:

1. Psychology
2. Systems and Principles of Training
3. Estimation of Plans and Analysis of Trades
4. History of Vocational Training
5. Israeli Culture and Sociology
6. Skills in Training for Practical Work

III. Technical Subjects:

Metallurgy Trade:

1. Theory of Materials and Their Strength
2. Machinery for Chipping Action and Their Tools
3. Production of Theory (Processes, Production, Devices, Fixtures and Forms).
4. Planning and Drawing, Machinery Parts
5. Production Management

Laboratory:

1. Strength of Materials
2. Mechanical Measurements
3. Heat Treatment
4. Welding and Shaping Machines

Machinery Trade:

1. Theory of Engines
2. Theory of Vehicles
3. Thermodynamics
4. Technology
5. Laboratory

Electricity Trades:

1. Technology of Electricity
2. Theory of Electricity
3. Electrical Motors and Devices
4. Technical Drawing
5. Electrical Measurements
6. Laboratory

Electronics Trades:

1. Theory of Electricity and Measurements
2. Theory of Electronics
3. Technology of Electronic Materials
4. Technical Drawing
5. Laboratory

Carpenters:

1. Technology of Wood
2. Materials, Tools and Machinery
3. Technical Drawing
4. Construction Theories
5. Costing

Fashions:

1. Technology of Textiles
2. Fashion Drawing
3. Free Modelling
4. Modelling According to Systems
5. Cutting, Sewing and Ironing
6. Methodics of Sewing

The Program of Instruction

The System of Instruction in the School for Training Instructors and Vocational Teachers is according to specific themes, with each such theme constituting a self contained unit.

Examinations :

Examinations are held during the course of studies. At the end of the term a final examinations is held, apart from those subjects requiring a final paper as listed under each subject in the chapter on curriculum.

Graduation and Graduation Certificate

At the end of the entire course of studies the student is awarded a final certificate from the School for Instructors which entitled him to receive the "Instructor's Certificate" from the inter-departmental committee for accrediting vocational education instructors.

Training During the Course of Studies

The student will be directed to one of the Vocational High Schools for training in instructing which includes attendance, observation, and instruction under supervision. The Training takes place during the period of study at THE INSTITUTE, and at schools chosen for this purpose, once a week for 4-6 hours.

The student is required to devote one full day, in regular study hours (08.00-14.00) to training in instructing. The specific day chosen for this should be announced at registration.

Preparatory Classes for the Supplementation of Three Year Vocational High School Education

The Purpose of the Course is to give experienced industrial workers, possessing only partial professional knowledge, further education and raise their standard to that of a Three Year vocational High School Graduate.

The Preparatory Classes will be held if and when the need arises and a sufficient number of candidates register. Candidates recommended by the Board of Admission will be accepted to the Preparatory Classes. The duration of studies is one year.

At the end of the year, students take final external examinations set by the Department for Examinations in the Ministry of Education and Culture.

Candidates passing these examinations are permitted to continue their studies in the regular classes of the School for Training Vocational Instructors and Teachers of Technical Subjects.

The examinations are held in the following subjects, according to the Three year Vocational High School Curriculum.

1. Hebrew
2. Technical English
3. Histroy and Citizenship
4. Mathematics
5. Physics
6. A combined theoretical-vocational examination

Registration Offices:

Tel-Aviv: The Kirya, 19, D. Str. Tel. 256421

Jerusalem: The Labour Ministry, The Russian Compound, Tel.: 27341

Haifa: The Technion Courtyard, Hadar Hacarmel, Tel.: 529271

Beer-Sheba: The Center for Vocational Training, 71 Basel Str., Tel.:057-3290.

The Department for Qualified Teaching Instructors

The Purpose of the Course is to provide qualified teaching staff for basic technical subjects in all the classes and all the courses of studies, and more advanced technical subjects in the Three Year Vocational High School and in the 9th and 10th grades of the Four Year Vocational High School.

The Studies take place in the evenings, three times a week, during 11 months of the year. All in all 640 hours of instruction.

Qualified Instructors, approved by the Selecting Committee, or other with an equivalent education so approved, are also admitted to this Course.

Studies are according to specific subjects. Mid-term Examinations are held during the Course and Final Examinations at the end of the instruction of each subject apart from subjects requiring a final project.

Students passing the Final Examinations receive a Certificate of the Completion of Studies qualifying them for a Teaching Certificate from the Inter-Departmental Accrediting Committee.

The Curriculum:

General Subjects:

- Hebrew
- Technical English
- The Jewish People and Its Culture; Sociology
- Mathematics (Revision and Completion)

Pedagogical Subject:

- The History and Principles of Education
- The Educational Structure (In Israel and Abroad) (including an Introduction to Vocational Education)
- The Theory of Teaching (including the Didactics for each Subject)

(Supplementary Studies for the Qualified Instructor, a Graduate of a Three Year Vocational High School, to enable him to acquire a Four Year Vocational High School Graduate Standard, in Technical Subjects).

General Subjects:

- Hebrew Expression and Literature
- Bible Studies
- History and Citizenship
- Technical English
- Mathematics
- Physics
- Chemistry

Vocational Instruction: According to Their Specific Course.

REGISTRATION

Registration takes place at the office of the school for **Training Instructors and** Qualified Teaching Instructors.

The Candidate is required to submit the following:

a. For the Department for Qualified Instructors:

1. A Final Certificate of a Vocational School
2. Documents Certifying Practical Experience in his Specific Field.
3. Two Passport Pictures.
4. I.L.30.- Registration Fee

In addition to the Final Examinations held by THE INSTITUTE the student will have to sit for External Examinations held by the Ministry of Education and Culture.

External Examinations Fee is IL. 7.- per Examination.

The Final Project Fee is IL. 50.

Tuition for the Evening Course for Qualified Instructors - IL. 400 per year.

b. For the Department for Qualified Teaching Instructors:

1. A Final Certificate of a Vocational High School
2. A Instructor Certificate
3. Documents confirming Previous Experience in Teaching
4. IL. 30.- Registration Fee

Certificates or documents should be submitted either in photocopies or authorized copies. The Candidate is required to fill in an Application Form (to be obtained in the Registration Office or by mail). An Application Form without the documents attached will not be accpeted. Registration for new students is held until July 1st. Notices will be sent to the candidates selected.

Tuition - for the Evening Course for Teaching Instructors - IL. 400 per year.

Foremen Training Schools

On initiating Post High School Vocational Instruction, the Labour Ministry expressed the greatest interest in the inclusion of a Foremen Training School in THE INSTITUTE. The International Labour Organization's experts laid great stress on the importance of such a school, as at present almost twenty thousand foremen are employed in Israel, in construction, metal work, etc. In this technological era, much importance must be attached to the educational standard and suitability of foremen in Israel.

During the last nine years the Foremen Training School has had 330 pupils in 19 graduating classes: one in Garage Management, 13 in Metal Work and five in Construction. It is most unfortunate that this operation was limited both in the number of students, and in the choice of subjects, the reason for this is the lack of status of the foreman by both the National Institutes and the General Federation of Labour, creating a corresponding lack of interest. Those wishing to increase their education, preferred any other of the INSTITUTE'S schools to that of the Foreman Training.

By agreement, the Foremen Training activities were transferred from THE INSTITUTE to the "Israeli Productivity Institute" with the former retaining Curriculum Planning and Supervision of the Technological Aspects.

Students of Foremen Training Schools, as at 31st December 1969:

Place	Foremen		Senior Printers		Chemical Operators	
	Day		Evening		Evening	
	Classes	Students	Classes	Students	Classes	Students
Tel Aviv	1	29	1	23		
Beer Sheva	1	15			4	80
Total	2	44	1	23	4	80

The Training of Senior Operators

A. The Chemical Operators Training

The Purpose of the Course is to provide skilled manpower for the operation of modern chemical equipment in plants in the Chemical Industry. The Operator should have a firm theoretical foundation to enable him to understand the general framework within which he operates as well as the equipment operated by him

The Subjects of Instruction

I. General and Scientific Subjects:

1. Hebrew, Listing and Technical Report
2. Safety
3. Physics
4. Mathematics
5. Technical English

II. Technical Subjects:

1. General Chemistry (Inclusive Laboratory)
2. Organic and Analytic Chemistry
3. Instruments for Control and Adjustment
4. Heat and Power Engines
5. Equipment for Production of Chemical Devices

III. Practicum of Production Plants:

This Course does not entitle the student to any Technician's Certificate whatsoever.

B. The Senior Printing Training Department

The Subjects of Instruction

General and Scientific Subjects:

1. Hebrew Expression
2. English
3. Mathematics
4. Physics
5. Electricity
6. Economics
7. Working Laws

Printing Subjects:

1. Branches of Printing
2. Publishing
3. Advertising
4. Packaging and Shaping
5. Printing Schools
6.
7. Chemistry
8. Electronics

Tuition - In the Foremen Training School and The School for Senior Operators (Evening Classes) - IL. 400 per year.

Loans for Students of the National Institute for Technical Training, from a Special Fund at the Workers' Bank (Bank Hapoalim)

1 The Loan and its Purpose

a) A loan granted a student on a yearly basis is intended to assist him in financing his studies in the regular day course.

b) The Amounts of the Loan:
The sum of IL. 1750 is intended for students of a one year course of studies possiblty to be extended for a further month or two but not more than 15 months.

The sum of IL. 3550 is intended for students of a 2 year course of studies.

c) Payment of Loans:

A loan of IL. 1750 is to be repaid in 24 equal monthly installments.

A loan of IL. 3500 is to be repaid in 36 equal month installments.

d) The Procedure of Acquiring a Loan:

A regular day course student wishing to get a loan should hand THE INSTITUTE a request form.

e) The Manner in which the Loan Is Granted

The loan is given in 4 equal tri-monthly installments. The first installment will be given 3 months from the beginning of studies. The interest on the loan was fixed at 6.5% per year. The interest accumulating from the day the loan is received until the repayment begins will be added to the principal, to be repaid together with the installments.

2. Cessation of Studies

A student interrupting his studies before the end of the school year, of his own free will, at the Institute's discretion or for any other reason will immediately cease to receive any further installments of the loan. At the same time the repayment of that part of the loan which the student has received will commence according to the given agreement between the Workers' Bank and the said student.

3. The loan will be granted by any of the branches of the Workers Bank in Israel according to the student's choice. The student may consult the list of the Bank's branches available at the school's office.

4. The student will receive a travel allowance, or part of the sum required for housing, directly from THE INSTITUTE. The travel allowance will be based on actual expenses multiplied by 22 study days, with a deduction of 80 Agora per day, to be paid by the student himself. However, the entire sum is not to exceed IL. 35.

   Payments for lodging outside the student's regular domicile will be paid on the basis of the distance from the student's lodging to the school, not less than 25 km. from the school. Students in dormitoy conditions will receive IL. 35 per month - participation in lodging expenses.

Social Security Insurance for Students on Reserve Duty

Obligatory Insurance

Every Israeli Resident over the age of 18, even if unemployed, apart from a housewife unemployed outside her home, is covered by National Social Security.

Every student over the age of 18 is obliged to pay insurance in order to ensure his rights under National Social Security and the special fund for reservists.

Obligatory Payments

A Student, employed neither on a regular basis nor on his own, studying at an Institute, for the purposes of this law recognized as an institute of higher education or as a Post High School one, is obliged to pay the insurance fee himself. All students, whether or not obliged to serve in the army, apart from married women students, unemployed outside their own homes, are required to pay this fee. This fee comes under a special arrangement by which a student is required to pay the insurance through the Institute at which he studies, at a special rate lower than the usual.

The student is obliged to pay this fee in order to validate both his future rights and that of his Social Security Insurance while called up on reserve duty during his studies.

Employers of unpaid student-workers (at least 12 hours a week, i. e. in laboratories, hospitals, etc.) have to pay the work accident branch of insurance for them. The other branches of insurance are to be paid by the student himself through the Institute at which he studies.

The Rate of the Payment

The rate of the payment for the 1970/71 school year will be as follows: IL. 36 - per year (IL. 12 to the National Social Security and IL. 24 to the Special Fund for Reservists). A school year starts on the 1st of October and ends on the 30th of the following September.

The Form of Payment

The regular insurance year beings on April 1st every year and ends on March 31st of the following year.

Students, included in the special arrangement, will pay their allotted fee, upon registering, at the Institute's Office, or the Tuition Department of his school.

Change in Status

Those students, formerly exempted from paying Insurance through the Institute (having worked as an employee or self-employed) and had their status changed after the beginning of the year (his employment having been terminated) is obliged to pay the student's insurance.

If the change occured within the first two months of the school year (up to the 30th of November) the student will pay his insurance through the Institute. After this date, the insurance is to be paid directly to the National Social Security branch located in the area of the Insititute.

Exemptions

A student belonging to one of the following groups is exempted from paying insurance through the Institute. He is to fill in the Decleration of Exemption Form, attached to the Application Forms and submit them at the office.

1. A student under the age of 18 who will not reach that age till the end of the school year. A student reaching the age of 18 within the school year is obliged to the insruance as above.

2. A student, non-resident in Israel, or one who is a resident but not a citizen is obliged to pay the insurance.

3. A student, regularly employed, whose insurance is paid by his employer.

4. A self employed student is obliged to pay his insurance directly to the National Society Security Institute, in accordance with his income.

5. A student soldier whose regular army service lasts to the end of the school year is exempted.

   A student soldier discharged within the school year is obliged to pay full insurance through the school or to the National Social Security Institute.

6. A member of a kibbutz or a cooperative settlement has his insurance paid by them. If he pays his insurance through the school he is entitled to the insurance from the Reservists' Fund as a studnet.

7. A married woman student, unemployed on a regular basis nor half employed (she is, however, entitled to insurance when on reserve duty, although exempted from paying the insurance).

Note

A student leaving for Reserve Duty without payhing his insurance, loses his rights to payments from the Reservists' Fund.

The Students' Rights

A student who has carried out his obligation in paying the insurance through the school, before going on Reserve, is entitled to payments from the Reservists' Fund, amounting to IL. 260 a month. For each day of service IL. 1. 06 is deducted from this sum for provisions supplied by the army.

This payment is also available to a student who has interrupted his studies or has finished his year of studies, and has not yet been employed, and has been called up for Reserve Duty within a period of two months from then.

The claim for the Reservists' Fund payments should be turned in at the National Social Security Branch located in the area of the school.

A student regularly employed, receives the insurance payments from his employer, according to his salary up to a maximum of IL. 1500 per month. A self employed so insured receives the Reservists' Fund's payments directly from the National Social Security Institute according to his income from which he pays the insurance, up to a maximum of IL. 18, 000 per year.

A student having served in the Reserves within six months of the termination of his employment is entitled to insurance payments for his service according to his salary or his income.

The student is not entitled to these insurance payments if he has not paid the above mentioned insurance before going on Reserve.

Others Forms of Insurance

A student who has been insured as self employed or one who has been regularly employed is entitled to all the various insurance payments given by the National Social Security Institute as follows: Maternity Grant, Post-Maternity Grant for Working Women, Old-age Provision, and Work Accident Insurance.

A student insured through the school is entitled to the above mentioned insurance payments apart from Post Maternity Fund and Work Accident Insurance.

TABLES UP TO 1st JUNE 1971

SEMI-ACADEMIC NATURE AT THE WORKER'S SETTLEMENTS

Up to 1.7.71

Place and Direction	Class	Study Year - Classes 1	2	3	4	Total Students	Total Classes
Yaad-Nathan							
Machines	Evening		x			12	1
Ohel Sarah							
Machines	Evening	x				16	1
"	"		x			16	1
						32	2
Shaar Hanegev							
Machines	Evening	x				18	1
Mikveh Israel							
Agriculture	Evening	x				25	1
Tel-Hay							
Agriculture	Day		x			16	2
Ort Qiryat Bialik							
Technicians							
Machines	Evening	x				27	1
Military Industry Jerusalem							
Technicians							
Metal			x			22	1

B. MOSINSOHN, SCHOOL FOR VEHICLE TECHNICIANS - MAGDIEL

Up to 1.6.71

Place and Direction	Class	Study Year - Classes				Total Students	Total Classes
		1	2	3	4		
Vehicle Technician	Day A'	x				22	1
"	Day B'		x			21	1
						43	2
Project						20	1
						63	3
	ALTA - ASHDOD						
Technicians							
Electronics		x				27	1
Project						30	1
						57	2
	ZERIFIN						
Technicians							
Metal			x			11	1
Project						20	1
						31	2
	ZERIFIN						
Technicians							
Electronics	Day B'					17	1

SHENKAR COLLEGE RAMAT-GAN

Up to 1.6.71

Place and Direction	Class	Study Year - Classes 1	2	3	4	Total Students	Total Classes
Practical Engineers							
Textiles	Models Formation	x				26	1
	Textile "	x				18	1
	Technology "	x				27	1
	Production Engineering	x				25	1
	Marketing	x				25	1
TOTAL OF STUDENTS						121	5

SCHOOL OF PRACTICAL ENGINEERS - TECHNIKUM ORT GIVATAYIM

Place and Direction	Class		Study Year - Classes				Total Students	Total Classes
			1	2	3	4		
Practical Engineers in Cooperation with Ort								
Building	Day	F'		x			20	1
Building and Architecture	"	G'	x				34	1
TOTAL PRACTICAL ENGINEERS							54	2
Technicians								
Refrigeration, Metal	Evening	A'	x				33	1
"	"	B'	x				32	1
TOTAL TECHNICIANS							65	2
TOTAL STUDENTS							119	4

REGIONAL COLLEGE "MENASHE" - HADERA
PRACTICAL ENGINEERS

Up to 1.6.71

Place and Direction	Class	Study Year - Classes				Total Students	Total Classes
		1	2	3	4		
Machines	Evening	x				15	1
Preparation Class for Practical Engineers	Evening	x				23	1
GENERAL TOTAL						38	2

J. Rabinovitz, Practical Engineer School - Beer-Sheva (cont.)

Up to 1.6.71

Place and Direction	Class		Study Year - Classes				Total Students	Total Classes
			1	2	3	4		
Practical Engineers								
Project -								
Building	Evening	C'				x	15	1
Machines	"	B'				x	15	1
"	Day	A'		x			25	1
Electronics	Day	D'		x			25	1
"	Evening	A'				x	11	1
Chemistry	Day	H'		x			13	1
"	"	I'		x			13	1
							117	7
TOTAL STUDENTS IN BEER-SHEVA							738	33

NATIONAL INSTITUTE FOR TECHNICAL TRAINING
ATOM TECHNICIANS

Place and Direction	Class		1	2	3	4	Total Students	Total Classes
Technicians								
Atom	Day	A'	x				20	1

PRACTICAL ENGINEER SCHOOL IN BEER-SHEVA NAMED AFTER I. RABINOVITZ

Up to 1. 6. 71

Place and Direction	Class	Study Year - Classes 1	2	3	4	Total Students	Total Classes
Technicians Beer-Sheva							
Electronics	Evening A'	x				22	1
"	Day B'	x				23	1
						45	2
Chemistry	Day A'	x				25	1
"	" B'	x				22	1
						47	2
Instruments & Inspection	Evening B'	x				25	1
"	" A'	x				10	1
						35	2
TOTAL TECHNICIAN STUDENTS						127	6
Chemical Operators							
Arad Workers	Day C'		x			25	1
"	Day D'	x				25	1
Mahteshim Workers	Day C'	x				25	1
						75	3
Instructors	Evening E'		x			20	1

PRACTICAL ENGINEER SCHOOL IN BEER-SHEVA NAMED AFTER I. RABINOVITZ

Up to 1.6.71

Place and Direction	Class	Study Year - Classes 1	2	3	4	Total Students	Total Classes
Practical Engineers Beer-Sheva							
Machines	Evening C'				x	10	1
"	" D'			x		14	1
"	" E'	x				35	1
"	Day B'		x			25	1
"	"	x				30	1
						114	5
Electronics	Day E'		x			25	1
"	" F'	x				35	1
"	Evening B'				x	13	1
"	" C'			x		10	1
"	" E'	x				32	1
						136	6
Chemistry	Day J'		x			19	1
"	" K'	x				30	1
						49	2
Preparation Classes for Practical Engineers	Evening F'	x				35	1
"	" F'	x				35	1
"	" F'	x				35	1
						100	3
TOTAL REGULAR STUDIES - ENGINEERS						399	16

HADASSA INSTITUTE - JERUSALEM

Up to 1.6.71

Place and Direction	Class		Study Year - Class				Total Students	Total Classes
			1	2	3	4		
Practical Engineers								
Computers	Day	A'	x				27	1
Technicians								
Scientific Photography	Day	A'	x				20	1
GENERAL TOTAL Hadassa Institute							47	2
THE NATIONAL INSTITUTE FOR TECHNICAL TRAINING EAST JERUSALEM								
Technicians								
Building	Day	A'	x				27	1
INSTITUTE FOR TECHNICAL ENGINEERING STUDIES -MISHLAV BROADCASTING SERVICE JERUSALEM								
Electronics	Day	A'	x				38	1

PRACTICAL ENGINEERS SCHOOL "ORT" JERUSALEM

Up to 1.6.71

Place and Direction	Class		Study Year - Class 1	2	3	4	Total Students	Total Classes
Electronics	Day	A'		x			26	1
"	Evening	F'	x				33	1
"	"	E'		x			19	1
"	"	D'			x		17	1
Machines	Evening	B'				x	16	1
"	"	C'	x				26	1
Building	Evening	B'	x				14	1
TOTAL Practical Engineers							151	7
Preparation classes for Practical Engineers							41	1
GENERAL TOTAL 12 class school Ort							192	8
Project							17	1

HIGH SCHOOL FOR APPLIED SCIENCE - JERUSALEM

Place and Direction	Class		1	2	3	4	Total Students	Total Classes
Practical Engineers								
Computers	Day	A'		x			12	1
"	Day	B'	x				18	1
GENERAL TOTAL High School for Applied Science							30	2

SCHOOL OF PRACTICAL ENGINEERS - Tel Aviv University

Up to 1.6.71

Place and Direction	Class	Study Year - Classes				Total Students	Total Classes
		1	2	3	4		
Electronics	Day	x				46	1
	Day		x			25	1
						71	2
Project						16	1
GENERAL TOTAL Tel Aviv University						87	3
Project						16	1

ORT SCHOOL FOR PRACTICAL ENGINEERS, Yad Singalovsky
(Practical Engineers)
Tel Aviv

Up to 1.6.71

Place and Direction	Class	Study Year - Classes				Total Students	Total Classes
		1	2	3	4		
Electronics	Day						
	A'-1	x				35	1
	A'-2	x				34	1
	B'		x			35	1
Electronics	Engineers-Teachers					30	1
	"					30	1
						164	5
Electricity	Day						
	A'	xx				28	1
	B'		x			22	1
						50	2
Machines	Day						
	A'-1	x				37	1
	A'-2	x				29	1
	B'		x			39	1
						105	3
Total Engineers						319	10
Technicians	Evening						
	A'	x				22	1
	B'	x				28	1
	C'	x				30	1
						80	3
GENERAL TOTAL "Ort" Yad Singalovsky						399	13
Project						95	3

NATIONAL SCHOOL FOR PRACTICAL ENGINEERS - HAIFA
EMEK HAYARDEN, ZEFAT & EILAT BRANCH

Up to 1.6.71

Place and Direction	Evening	Study Year - Classes				Total Students	Total Classes
		1	2	3	4		
Practical Engineers - Eilat							
Machines	Evening	x				9	1
	"				x	7	1
Total Engineers						16	2
Preparation classes for Practical Engineers		x				9	1
General Total Eilat						25	3
Practical Engineers - Emek-Hayarden							
Electronics	Evening	x				14	1
Machines	"	x				3	1
Total Practical Eng.						17	2
Accreditations						4	1
General Total Emek Hayarden						21	3
Practical Engineers - Zefat							
Electronics	Evening	x				13	1
Accreditations	"	x				13	1
General Total Zefat						26	2

NATIONAL SCHOOL FOR PRATICAL ENGINEERS - HAIFA
NAZRAT BRANCH

Up to 1.6.71

Direction	Day/Evening	Study Year - Classes 1	2	3	4	Total Students	Total Classes
Machines	Day	x				21	1
"	Evening	x				15	1
"	"		x			9	1
Building	Day	x				15	1
"	"		x			11	1
"	Evening	x				9	1
"	"		x			9	1
"	"			x		8	1
Total Practical Engineers						97	8
Preparation Classes for Practical Engineers						35	1
General Total						132	9

NATIONAL SCHOOL FOR PRACTICAL ENGINEERS - HAIFA

MIDRESHET-RUPPIN BRANCH

Up to 1.7.71

Direction	Day	Study Year - Classes				Total Students	Total Classes
		1	2	3	4		
Practical Engineers							
Machines	Day	x				24	1
	"		x			23	1
Total Practical Engineers						47	1
Preparation Class for Practical Engineers	Day					30	1
Technicians							
Chemistry	Day	x				16	1
Agriculture	"		x			13	1
Machines	"		x			25	1
Total Technicians						54	3
General Total						131	6
Project						25	1

NATIONAL SCHOOL FOR PRACTICAL ENGINEERS - HAIFA
TEL AVIV BRANCH

Up to 1.7.71

Direction	Day/Evening	Study Year - Classes				Total Students	Total Classes
		1	2	3	4		
Electronics	Evening	xx				63	2
	"		xx			53	2
	"			xx		53	2
	"				x	43	1
						212	7
Electricity	Evening			x		14	1
Machines	"	x				30	1
	"		x			14	1
	"			x		16	1
	"				x	22	1
						82	4
Building			x			12	1
				x		16	1
						28	2
Total Practical Engineers						336	14
Preparation classes for Practical Engineers					xx	100	4
General Total						406	18
Project						53	2

National School for Practical Engineers - Haifa (Haifa Branch) (cont.)

Direction	Class	Study Year - classes				Total Students	Total Classes
		1	2	3	4		
Preparation Classes for Practical Engineers	Evening	x				81	1
Technicians							
Electronics	Evening Rafael		x			74	3
Machines	"	x				30	1
Building	"	x				12	1
Instruments and Inspection						22	1
Total of Technicians						138	6
General Total Haifa						1341	53
Project	Day					247	8
Project	Evening					37	2

NATIONAL SCHOOL FOR PRACTICAL ENGINEERS - HAIFA (HAIFA BRANCH)

Up to 1. 7. 71

Direction	Class	Study Year - classes				Total Students	Total Classes
		1	2	3	4		
Electronics	Day	xx				66	2
"	"		x			117	4
"	Evening	x				31	1
"	"		xxx			32	2
"	"			x		22	1
"	"				x	22	1
Electricity	Day	x				37	1
"	"		x			28	1
"	Evening	x				26	1
"	"		x			17	1
Machines	Day	xxx				104	3
"	"		xxx			89	3
"	Evening	xx				73	2
"	"		x			32	1
"	"			x		26	1
"	"				x	16	1
Building	Day	xx				61	2
"	"		xxx			79	3
"	Evening	x				20	1
"	"		x			8	1
"	"			x		8	1
"	"				x	9	1
Architecture	Day	x				31	1
Engineers							
Chemistry	Day	x				40	1
"	"		x			26	1
"	Evening	x				18	1
"	"		x			7	1
"	"			x		8	1
"	"				x	10	1
Plastics	Day	x				30	1
"	"		x			16	1
Physics	"	x				13	1
Total Practical Engineers						1102	45

SCHOOL FOR TECHNICIANS - TEL AVIV

Up to 1.6.71

Place and Direction	Class		Study Year Classes 1	2	3	4	Students	Classes
Metal	Day	C'	x				20	1
	"	D'	x				24	1
	"	E'	x				28	1
	Military Industry	B'	x				30	1
	"	C'	x				33	1
Metal	Evening	A'		x			21	1
	"	B'	x				17	1
	"	C'	x				20	1
	"	D'	x				24	1
	"	E'	x				27	1
Building	"	A'					25	1
							269	11
Chemistry	Day	B'	x				21	1
Building	"	A'		x			22	1
	"	B'	x				35	1
Electricity	"	A'	x				35	1
							113	4
Total of the Technicians School Tel Aviv							961	3
Project								
Metal		A'					24	1
		B'					20	1
	Military	A'					33	1
	Industry	A'					29	1
Electronics		A'					33	1
		B'					28	1
Industry and Administration		A'					20	1
Chemistry		A'					20	1
Total Project							207	8

SCHOOL FOR TECHNICIANS - TEL AVIV

Up to 1. 6. 71

Place and Direction	Class	Study Year Classes				Students	Classes
		1	2	3	4		
Electronics	Day						
	C' Tuesday	x				33	1
	D' Wednesday	x				38	1
	E'	x				43	1
	F'	x				35	1
	G'	x				21	1
	Evening						
	A'		x			21	1
	B'	x				10	1
	C'	x				23	1
	Tadiran					22	1
Industry and Administration	Day						
	B'	x				36	1
Photography and Film Photography	Raphael		x			14	1
	Herzlya	x				21	1
Electricity	Evening						
	A'		x			16	1
	B'	x				26	1
Instrument and Inspection	Evening						
			x			14	1
Total of regular study						373	15

ATTACHMENTS TO THE TABLES
WITH DETAILS
OF CLASSES AND SCHOOLS

Students of the Institute at the Beginning of the School Year 1970/71

Eng.	Technicians	Instructors	Foremen	Chemical Workers	Senior Printers	Training for Practical Eng. and Technicians	Re-training for Academics	Total
3778	1863	601	22	75	18	655	80	7092

Ministry of Education and Culture **Ministry of Labour**

NATIONAL INSTITUTE FOR TECHNICAL TRAINING

Preparation for Practical Engineers	419
Practical Engineers	731
Accreditation to Engineers	17
Technicians (approximately)	450
Instructors	272
Chemical Workers	50
Foremen	18
Total	1957

Graduates of the Institute for the years 1972-1962

Year	Practical Engineers	Technicians	Instructors	Foremen	Total
1962	97	-	127	-	224
1963	201	-	131	79	411
1964	224	-	98	24	346
1965	360	-	175	55	590
1966	309	-	205	-	514
1967	370	-	195	60	625
1968	510	-	204	45	759
1969	432	85	271	-	788
1970	653	273	340	15	1281
1971	731	450	272	20	1472
Total	3887	808	2018	298	7011

Table of Technicians (students and classes) according to Directions for 1st June 1971

Place Direction	Tel Aviv		National School Haifa	Military Industry Jerusalem	Broadcasting Serv. J-m	Hadassah Jerusalem	Technicians East J-m	Elta Ashdod	Beer-Sheva		Ort Qiryat Bialik	Magdiel	Israel Army Zerifin		Tel-Hay	Yaad Nathan	Ohel Sarah	Shaar Ha-Negev	Midreshet Ruppin	Mikveh Israel	Givatayim	Dimona	Ort Tel-Aviv	Total
	Day	Eve.	Eve.	Eve.	Day	Day		Day	Day	Eve.	Eve.	Day		*)	Day	Eve.	Eve.	Eve.	Day	Day	Eve.		Eve.	
Building and Architecture	2 57	1 25	1 12	- -	- -	- -	1 27	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	 121
Machines	5 135	5 109	1 30	1 22	- -	- -	- -	- -	- -	- -	1 27	-	1 (**** 11	- -	- -	1 12	2 32	1 18	1 25	- -	2 65	- -	- -	21 486
Electronics	5 170	4 76	3 74	- -	1 38	- -	- -	1 27	1 23	1 22	- -	- -	- -	(*1 -	- 17	- -	- -	- -	- -	- -	- -	- -	3 80	20 527
Electricity	1 35	2 42	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	3 77
Chemistry	1 21	- -	- -	- -	- -	- -	- -	- -	2 47	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 10	- -	- -	- -	- -	4 64
Scien. Photography & Film Phot.	2 35	- -	- -	- -	- -	1 20	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	3 55
Instrument & Inspection	- -	1 14	1 22	- -	- -	- -	- -	- -	- -	2 35	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	4 71
Industry and Administration	1 36	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 36
Agricultural and Atom	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	2 28	- -	- -	- -	1 13	(*** 1 25	(** 20	- -	- -	5 66
Vehicles	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	2 43	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	2 43
Total Regular Studies	17 489	13 266	6 138	1 22	1 38	1 20	1 27	1 27	3 70	3 57	1 27	2 43	2 28		2 28	1 12	2 32	1 18	3 54	1 25	2 65	1 20	3 80	68 1586
Project	8 207	- -	- -	- -	- -	- -	- -	1 30	- -	- -	- -	1 20	1 20		- -	- -	- -	- -	3 54	- -	- -	- -	- -	11 277
General Total	25 696	13 266	6 138	1 22	1 38	1 20	1 27	2 57	3 70	3 57	1 27	3 63	3 48		2 28	1 12	2 32	1 18	3 54	1 25	2 65	1 20	3 80	79 1863

*) Course for senior army officers and tel-communication office Zerifin; **) Atom Research - Dimona

***) Volcani Research Institute - Mikveh Israel

****) Course for Ordnance Corps

Table of Practical Ingineers and Classes for 1st June 1971

Place of School and Direction	National School Branch T.A.	Ort Yad-Singal-ovsky	T.A. Uni-ver-sity	National School Haifa		Ort Jerusalem		School for Applied Science Jerus.	Hadassa College Jeru-salem	Beer-Sheva University		National School Ruppin	National School Nazrat		National School Zefat	National School Eilat	College of Semi Academic Nature Hadera	Ort Tech. Giva-tayim	College of Semi Academ. Nature R. Gan	Nat.Sch. for Prac. Eng. Emek-Hayar.	Total
	Eve.	Day	Day	Day	Eve.	Day	Eve	Day	Day	Day.	Eve.	Day	Day	Eve.	Eve.	Eve.	Eve.	Day	Day	Eve.	
Building &architecture	2 28	- -	- -	6 171	4 45	- -	1 14	- -	- -	- -	- -	- -	2 26	3 26	- -	- -	- -	2 54	- -	- -	20 364
Machines	4 82	3 105	- -	6 193	5 147	- -	2 42	- -	- -	2 55	3 59	2 47	1 21	2 24	- -	2 16	2 15	- -	- -	1 3	35 809
Electronics	7 212	5 164	2 71	6 183	5 107	1 26	3 69	- -	- -	2 60	4 76	- -	- -	- -	1 13	- -	- -	- -	- -	1 14	37 995
Electricity	1 14	2 50	- -	2 65	2 43	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	7 172
Chemistry	- -	- -	- -	2 66	4 43	- -	- -	- -	- -	2 49	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	8 158
Plastics	- -	- -	- -	2 46	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	2 46
Phyiscs	- -	- -	- -	1 13	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 13
Textile	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	5 121	- -	5 121
Computers	- -	- -	- -	- -	- -	- -	- -	2 30	1 27	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	3 57
Prep. classes for Prac. Eng.	4 100	- -	- -	- -	2 81	- -	1 41	- -	- -	1 30	2 70	1 30	1 35	- -	- -	1 9	1 23	- -	- -	- -	14 419
Acc Classes	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 13	- -	- -	- -	- -	1 14	2 27
Total Regular Studies	18 436	10 319	2 71	25 737	22 466	1 26	7 166	2 30	1 27	7 194	9 205	3 77	4 82	5 50	2 26	3 35	2 38	2 54	5 121	3 21	133 3171
Project	2 53	3 95	1 16	8 247	2 37	- -	1 17	- -	- -	4 76	3 41	1 25	- -	- -	- -	- -	- -	- -	- -	- -	25 607
General Total	20 489	13 414	3 87	33 984	24 503	1 26	8 183	2 30	1 27	11 270	12 246	4 102	4 82	5 50	2 26	3 25	2 38	2 54	5 121	3 21	158 3778

Table of students for 1st July 1971

Partition according to day and evening classes

Place	Foremen		Academics		Training of Practical Engineers & Technicians						Total					
	Evening		Day		Day		Evening		Total		Day		Evening		Total	
	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.
Jerusalem	-	-	-	-	-	-	-	-	-	-	9	205	11	237	20	442
Tel Aviv	1	22	2	80	-	-	22	549	22	549	48	1344	70	1639	118	2983
Haifa	-	-	-	-	-	-	-	-	-	-	34	999	34	751	68	1750
Tel-Hay	-	-	-	-	-	-	-	-	-	-	2	28	-	-	2	28
Zefat	-	-	-	-	-	-	1	17	1	17	-	-	3	43	3	43
Nahariyya	-	-	-	-	-	-	-	-	-	-	1	25	-	-	1	25
Akko, Yaad Nathan	-	-	-	-	-	-	-	-	-	-	-	-	1	12	1	12
Emek Hayarden	-	-	-	-	-	-	-	-	-	-	-	-	3	21	3	21
Nazrat	-	-	-	-	-	-	-	-	-	-	4	82	5	50	9	132
Izrael, Ohel Sarah	-	-	-	-	-	-	3	46	3	46	-	-	5	78	5	78
Kfar Sitrin	-	-	-	-	-	-	-	-	-	-	2	33	-	-	2	33
Hadera	-	-	-	-	-	-	-	-	-	-	-	-	2	38	2	38
Midreshet Ruppin	-	-	-	-	-	-	-	-	-	-	7	156	-	-	7	156
Netanya	-	-	-	-	-	-	-	-	-	-	1	29	-	-	1	29
Magdiel	-	-	-	-	-	-	-	-	-	-	4	78	-	-	4	78
Herzlya	-	-	-	-	1	25	-	-	1	25	3	65	-	-	3	65
Givatayim	-	-	-	-	-	-	-	-	-	-	2	54	2	65	4	119
Mikve Israel	-	-	-	-	-	-	-	-	-	-	-	-	1	25	1	25
Ashdod	-	-	-	-	-	-	-	-	-	-	2	57	-	-	2	57
Shaar Hanegev	-	-	-	-	-	-	-	-	-	-	-	-	1	18	1	18
Beer Sheva	-	-	-	-	-	-	-	-	-	-	17	415	16	323	33	738
Eilat	-	-	-	-	-	-	-	-	-	-	-	-	3	25	3	25
Zerifin	-	-	-	-	-	-	-	-	-	-	2	31	-	-	2	31
Qiryat Bialik	-	-	-	-	-	-	-	-	-	-	-	-	1	27	1	27
Ramat Gan	-	-	-	-	-	-	-	-	-	-	5	121	-	-	5	121
Qiryat Gat	-	-	-	-	-	-	1	18	1	18	-	-	1	18	1	18
Total	1	22	2	80	1	25	27	630	28	655	143	3722	159	3370	302	7092

Table to students for 1st July 1971
Partition according to day and evening classes

Place	Instructor														Chemical workers		Senior printers	
	Regular Studies						Training		Total									
	Day		Evening		Total		Day		Day		Evening		Total		Day		Evening	
	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.
Jerusalem	-	-	2	32	2	32	-	-	-	-	2	32	2	32	-	-	-	-
Tel Aviv	2	37	10	215	12	252	3	30	5	67	10	215	15	282	-	-	1	18
Haifa	-	-	4	110	4	110	1	15	1	15	4	110	5	125	-	-	-	-
Tel-Hay	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zefat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nahariyya	-	-	-	-	-	-	1	25	1	25	-	-	1	25	-	-	-	-
Akko, Yaad Nathan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Emek Hayarden	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nazrat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Izrael Ohel Sarah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kfar Sitrin	2	33	-	-	2	33	-	-	2	33	-	-	2	33	-	-	-	-
Hadera	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Midreshet Ruppin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nethanya	-	-	-	-	-	-	1	29	1	29	-	-	1	29	-	-	-	-
Magdiel	1	15	-	-	1	15	-	-	1	15	-	-	1	15	-	-	-	-
Herzlya	-	-	-	-	-	-	2	40	2	40	-	-	2	40	-	-	-	-
Givatayim	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mikve Israel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ashdod	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shaar Hanegev	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beer Sheva	-	-	1	20	1	20	-	-	-	-	1	20	1	20	3	75	-	-
Eilat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zerifin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Qiryat Bialik	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ramat Gan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Qiryat Gat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	5	85	17	377	22	462	8	139	13	224	17	377	30	601	3	75	1	18

Table of students for 1st June 1971

Partition according to day and evening classes

Place	Technicians																	
	Regular Studies						Project Studies						Total Technicians					
	Day		Evening		Total		Day		Evening		Total		Day		Evening		Total	
	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.
Jerusalem	3	85	1	22	4	107	-	-	-	-	-	-	3	85	1	22	4	107
Tel Aviv	17	489	16	346	33	835	8	207	-	-	8	207	25	696	16	346	41	1042
Haifa	-	-	6	138	6	138	-	-	-	-	-	-	-	-	6	138	6	138
Tel-Hay	2	28	-	-	2	28	-	-	-	-	-	-	2	28	-	-	2	28
Zefat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nahariyya	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Akko, Yaad Nathan	-	-	1	12	1	12	-	-	-	-	-	-	-	-	1	12	1	12
Emek Hayarden	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nazrat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ohel Sarah	-	-	2	32	2	32	-	-	-	-	-	-	-	-	2	32	2	32
Kefar-Sitrin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hadera	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Midreshet Ruppin	3	54	-	-	3	54	-	-	-	-	-	-	3	54	-	-	3	54
Nethanya	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magdiel	2	43	-	-	2	43	1	20	-	-	1	20	3	63	-	-	3	63
Herzlya	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Givatayim	-	-	2	65	2	65	-	-	-	-	-	-	-	-	2	65	2	65
Mikve Israel***)	-	-	1	25	1	25	-	-	-	-	-	-	-	-	1	25	1	25
Ashdod	1	27	-	-	1	27	1	30	-	-	1	30	2	57	-	-	2	57
Shaar Hanegev	-	-	1	18	1	18	-	-	-	-	-	-	-	-	1	18	1	18
Beer Sheva	3	70	3	57	6	127	-	-	-	-	-	-	3	70	3	57	6	127
Eilat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zerifin *)****)	2	28	-	-	2	28	1	20	-	-	1	20	3	48	-	-	3	48
Qiryat Bialik	-	-	1	27	1	27	-	-	-	-	-	-	-	-	1	27	1	27
Ramat Gan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Qiryat Gat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimona*)	1	20	-	-	1	20	-	-	-	-	-	-	1	20	-	-	1	20
Total	34	844	34	742	68	1586	11	277	-	-	11	277	45	1211	34	742	79	1863

*) Course for senior army officers and tel-communication office - Zerifin. **) Atom Reserach - Dimona

) Volcain Research Institute - Mikveh Israel *) Course for Ordnance Corps.

Table of the students for 1st June 1971

Partition according to day and evening

Place	Practical Engineers																	
	Regular Studies						Project Studies						Total Practical Engineers					
	Day		Evening		Total		Day		Evening		Total		Day		Evening		Total	
	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.
Jerusalem	4	83	7	166	11	249	-	-	1	17	1	17	4	83	8	183	12	266
Tel Aviv	12	390	18	436	30	826	4	111	2	53	6	164	16	501	20	489	36	990
Haifa	25	737	22	466	47	1203	8	247	2	57	10	284	33	984	24	503	57	1487
Tel-Hay	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zefat	-	-	2	26	2	26	-	-	-	-	-	-	-	-	2	26	2	26
Nahariyya	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Akko, Yaad Nathan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Emek-Hayarden	-	-	3	21	3	21	-	-	-	-	-	-	-	-	3	21	3	21
Nazrat	4	82	5	50	9	132	-	-	-	-	-	-	4	82	5	50	9	132
Ohel Sarah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hadera	-	-	2	38	2	38	-	-	-	-	-	-	-	-	2	38	2	38
Midreshet Ruppin	3	77	-	-	3	77	1	25	-	-	1	25	4	102	-	-	4	102
Nethanya	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magdiel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herzlya	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Givatayim	2	54	-	-	2	54	-	-	-	-	-	-	2	54	-	-	2	54
Mikve Israel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ashdod	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shaar Hanegev	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beer Sheva	7	194	9	205	16	399	4	76	3	41	7	117	11	270	12	246	23	516
Eilat	-	-	3	25	3	25	-	-	-	-	-	-	-	-	3	25	3	25
Zerifin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ramat-Gan	5	121	-	-	5	121	-	-	-	-	-	-	5	121	-	-	5	121
Total	62	1738	71	1433	133	3171	17	459	8	148	25	607	79	2197	79	1581	158	3778

Table of students for 1st June, 1971 according to directions and new classes (began their studies on 1st September 1970) and continue

Place	Foremen		Train. Prac. Eng. & Tech.		General Total					
	Previous		New		New		Previous		Total	
	class.	stud.	class	stud.	class	stud.	class	stud.	class	stud.
Jerusalem	–	–	–	–	11	286	7	119	18	405
Tel Aviv	1	22	22	549	68	1747	50	1236	118	2983
Haifa	–	–	–	–	27	785	41	965	68	1750
Tel-Hay	–	–	–	–	1	15	1	13	2	28
Zefat	–	–	1	17	3	43	–	–	3	43
Nahariyya	–	–	–	–	1	25	–	–	1	25
Akko, Yaad Nathan	–	–	–	–	–	–	1	12	1	12
Emek-Hayarden	–	–	–	–	3	21	–	–	3	21
Nazrat	–	–	–	–	5	95	4	37	9	132
Izrael, Ohel Sarah	–	–	3	46	4	64	1	14	5	78
Qiryat Bialik	–	–	–	–	1	27	–	–	1	27
Kefar-Sitrin	–	–	–	–	2	33	–	–	2	33
Hadera	–	–	–	–	2	38	–	–	2	38
Midreshet Ruppin	–	–	–	–	3	70	4	86	7	156
Nathanya	–	–	–	–	1	29	–	–	1	29
Magdiel	–	–	–	–	2	35	2	43	4	78
Herzlya	–	–	1	25	3	65	–	–	3	65
Ramat-Gan	–	–	–	–	5	121	–	–	5	121
Givatayim	–	–	–	–	3	99	1	20	4	119
Mikveh Israel	–	–	–	–	1	25	–	–	1	25
Zerifin	–	–	–	–	2	28	1	20	3	48
Ashdod	–	–	–	–	1	27	1	30	2	57
Qiryat Gat	–	–	1	18	1	18	–	–	1	18
Shaar Hanegev	–	–	–	–	–	–	1	18	1	18
Beer Sheva	–	–	–	–	20	515	13	223	33	738
Dimona	–	–	–	–	1	20	–	–	2	20
Eilat	–	–	–	–	2	18	1	7	3	25
Total	1	22	28	655	173	4249	129	2843	302	7092

Table of the students for 1st June, 1971, according to directions and new classes
(began their studies on 1st September, 1970)

Place	Academics						Chemical Workers						Senior print.	
	New		Previous		Total		New		Previous		Total		Previous	
	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.
Jerusalem	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tel Aviv	1	20	1	60	2	80	-	-	-	-	-	-	1	18
Haifa	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beer Sheva	-	-	-	-	-	-	2	50	1	25	3	75	-	-
Eilat	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	20	1	60	2	80	2	50	1	25	3	75	1	18

Table of students for 1st June, 1971 according to directions and new classes
(began their studies on 1st September, 1 970)
and previous classes

Place	Instructors													
	Regular Study						Educational Finish		Total Instructors					
	New		Previous		Total		New		New		Previous		Total	
	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.
Jerusalem	-	-	2	32	2	32	-	-	-	-	2	32	2	32
Tel Aviv	6	119	6	133	12	252	3	30	9	149	6	133	15	282
Haifa	2	55	2	55	4	110	1	15	3	70	2	55	5	125
Tel Hay	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zefat	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nahariyya	-	-	-	-	-	-	1	25	1	25	-	-	1	25
Akko,Yaad Nathan	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Emek Hayarden	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nazrat	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Izrael,Ohel Sarah	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Qiryat Bialik	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kefar Sitrin	2	33	-	-	2	33	-	-	2	33	-	-	2	33
Hadera	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Midreshet Ruppin	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nathanya	-	-	-	-	-	-	1	29	1	29	-	-	1	29
Magdiel	1	15	-	-	1	15	-	-	1	15	-	-	1	15
Herzlya	-	-	-	-	-	-	2	40	2	40	-	-	2	40
Ramat Gan	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Givatayim	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mikveh Israel	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zerifin	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ashdod	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Qiryat Gat	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shaar Hanegev	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beer Sheva	-	-	1	20	1	20	-	-	-	-	1	20	1	20
Dimona	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eilat	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	11	222	11	240	22	462	8	139	19	361	11	240	30	601

Table of the Students for 1st June, 1971, according to their Choice of Study

Place	Practical Engineers						Technicians					
	New		Previous		Total		New		Previous		Total	
	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.	class	stud.
Jerusalem	7	179	5	87	12	266	4	107			4	107
Tel Aviv	9	302	27	688	36	990	27	727	14	315	41	1042
Haifa	22	673	35	814	57	1487	2	42	4	96	6	138
Tel-Hay							1	15	1	13	2	28
Zefat	2	26			2	26						
Nahariyya												
Akko, Yaad-Nathan									1	12	1	12
Emek-Hayarden	3	21			3	21						
Nazrat	5	95	4	37	9	132						
Ohel Sarah							1	18	1	14	2	32
Qiryat - Bialik							1	27			1	27
Kefar-Sitrin												
Hadera	2	38			2	38						
Midreshet Ruppin	2	54	2	48	4	102	1	16	2	38	3	54
Nathanya												
Magdiel								29	2	43	3	63
Herzlya												
Ramat-Gan	5	121			5	121						
Givatayim	1	34	1	20	2	54	2	65			2	56
Mikveh Israel							1	25			1	25
Zerifin							2	28	1	20	2	31
Ashdod							1	27	1	30	2	57
Qiryat Gat												
Shaar-Hanegev									1	18	1	18
Beer Sheva	12	338	11	178	23	516	6	127			6	127
Dimona							1	20			1	20
Eilat	2	18	1	7	3	25						
Total	72	1899	86	1879	158	3778	51	1264	28	599	79	1863

INDEX

Page

Preface 7
The National Institute of Technical Training, Its Role and Structure 10
The Managing Committee 10
The Extension of Activities 11
The National School for Training Practical Engineers 13
The Benzion Mosinsohn Vocational-Educational Institute in Magdiel 14
The Jerusalem Higher School of Technology 15
The Mizrahi Girls Foundation in Tel Aviv 16
Schools in Corporation with "Ort" in Israel 16
Boys' Town, Bait Vagan, Jerusalem 18
The Regional College 19
The School for Practical Engineers Associated with the Tel Aviv University 19
The "Hadassah" School for Practical Engineers and Technicians 20
The Technical Intensive Study Centre 20
Professional Retraining 22
A Course to Advance the Progress of Trade and Marketing (two levels) 24
Industrial Management 25
Management and Marketing 26
Office Management 26
Hospital Management 26
Hotel Management 27
Programming for Electronic Computors 28
Quality Control 28
Maintenance Engineering 28
Transportation and Traffic Engineering 29
Technical Librarianship 29
An Advanced Course for Safety Engineering 30
System Analysis for Automatic Data Processing 31
The Science of Information 31
The Course of English Studies 32
The Course for Social Work 33
The Practical Engineer Training Policy 35
A Pyramid of Responsibility 36
School for Practical Engineer Training 37

Page

Accumulative Course 38
Entrance Requirements 38
The Instruction 39
The Department of Practical Electronic Engineering 41
The Department of Practical Construction Engineering 42
The Department of Practical Electrical Engineering 43
The Department of Practical Chemical Engineering 44
The Department of Practical Mechanical Engineering 45
The Department of Practical Engineering in Plastics 46
The Department of Practical Agromechanical Engineers 48
The Practical Enineering Department of Physics............... 49
The Practical Engineering Department of Metallurgy and Material Research 50
The Preparatory Course for Candidates for Practical Engineering 51
Entrance Requirements 51
Practical Engineers Training Schools 53
The Technician Training Department 55
The Electronic Technician Training Course 59
The Nuclear Technician Training Course 61
The Electrical Technician Training Department 62
The Textile Technician Training Course 64
The Chemical Technician Training Department................ 65
The Metal Technician Training Department 67
The Photography Cinematography Technician Training Department (Electro optical specialization)...................... 69
The Photography and Cinematography Technician Training Department (Specialization in Films and T.V.)................ 70
The Vehicular Technician Training Department 71
The Industry and Management Technician Training Department 72
The Training Department for Technicians in Construction..... 74
Arrangements for Registration for the Practical Engineering and Technician Training Schools 76
Schools for Technicians 77
Schools for Training Qualified Vocational Instructors 79
The Instructor Training Department 81
The Program of Instruction 83
Preparatory Classes for the Supplementation of Three Year Vocational.. 84

Page

The Department for Qualified Teaching 85
Instructors 85
The Training of Senior Operators 88
The Senior Printing Training Department 89
Loans for Students of the National Institute for Technical Training, from a Special Fund at the Workers' Bank (Bank Hapoalim)..... 90
Social Security Insurance for Students on Reserve Duty......... 92
Tables 95